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ABSTRACT

These materials were designed to help remedial students increase mathematics proficiency on topics found in the Regents Competency Testing Program. The activities developed come complete with questions, "cards," and/or sample gameboards. Included in each activity is a list of materials needed. Several different activities often use the same materials with slight modifications. The materials do not include any type of evaluation or testing program, as it was felt that teachers should tie in related remedial activities with their own classroom diagnostic testing. These activities are designed to help in the remediation of mathematics in conjunction with commercially available materials as a supplement to the basic curriculum. A coding system listed in the table of contents is designed to identify the following specific operations and skill areas found in each activity: Place Value, Rounding, Addition, Subtraction, Multiplication, Division, Problem Solving, and Fractions. The general grade range for this set of materials is three through five. (MP)

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MAKE MATH MERRY - I

AN INSTRUCTIONAL ACTIVITIES GUIDE FOR TEACHING BASIC MATH SKILLS IN GRADES: 3-4-5.

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This curriculum guide was developed during the summers of 1979 and 1980 as a part of a Cortland-Madison BOCES sponsored Summer Curriculum Project.

SE 034 992

INTRODUCTION

The following materials were developed during the summers of 1979 and 1980 as a part of a cooperative curriculum project sponsored by the Cortland-Madison BOCES (joined in 1980 by members from the Oswego BOCES). The 16 participants this year represented 8 different school districts including teachers from: Cincinnatus, Cortland, DeRuyter, Hannibal, Homer, Marathon, McGraw, and Oswego. Most of these same people worked together last summer on writing activities and worksheets to be used in the remediation of mathematics. The three guides written represent a combined effort from the 1979 and 1980 workshops.

The three groups formed this year selected their own areas to work on, based on the needs of their students at that level. They were as follows:

Grades 3 - 5	Problem Solving
Grades 6 - 8	Fractions
Grades 9 - 12	General preparation for the Regents Competency Test with empahsis on per cents, consumer related math and geometry.

The main emphasis of this workshop was to develop original materials to help the remedial student increase his mathematics proficiency on the topics found in the Regents Competency Testing Program. The activities developed do not include any type of evaluation or testing program. Teachers should tie in related remedial activities with their own diagnostic testing done in the classroom.

It was the general feeling that although many teachers may have good intentions of making up an activity for their slower students to help them understand certain math concepts, they usually do not have the time to get all necessary ideas and materials together. You will find that most activities come complete with questions, "cards," and/or sample gameboards. Included in each activity is a list of materials needed. Several different activities use the same materials with slight modifications.

The coding system listed in the Table of Contents should help to identify specific operations and related skill areas found in each activity. You will also find a chart with each individual guide listing all activities with their related skill areas. Some activities were taken from DPA (Diagnostic Prescriptive Arithmetic). For a complete copy of DPA, write: New York City Board of Education, Community School District 31, Staten Island, New York 10004.

The original materials that have been developed are to be used to help in the remediation of mathematics. They should be used in conjunction with commercially available materials and are intended to supplement the basic curriculum. Although the materials have been written for remedial students, the teacher may be needed to explain the basic rules and procedures for certain activities.

We feel these activities offer a unique approach in helping the remedial student learn mathematics. We hope you will share our ideas with your students.

Annabelle Sproba
Coordinator 1980

TABLE OF CONTENTS

The following codes are used throughout:

Topic	Code	Pages
Place Value	PV	6 - 21
Rounding	RO	22 - 26
Addition	A	27 - 73
Subtraction	S	74 - 93
Multiplication	M	95 - 117
Division	D	118 - 143
Problem Solving	PS	144 - 208
Fraction Concepts	FC	209 - 328

These codes are used in the Table of Contents, and appear in the upper right-hand corner of each activity page.

Notes for Activities dealing with more than one topic:

All codes have been listed.

Example: Problem Solving using Addition and Subtraction PS - A-S

A-S-M-D alone deal with whole numbers unless paired with Fraction Concepts (FC).

* DPA Material
+ Arithemetic Teacher

Topics

Activities	Page No.	PV Place Value	RO Rounding	A Addition	S Subtraction	M Multiplication	D Division	PS Problem Solving	FC Fractio Concept
*Concentration	6-7	X							
*Abacus Criss-Cross	8-9	X							
*Place-Value Probe	10	X							
*Fives and Tens	11-12	X							
Magic Message in Color	13-13a	X							
* Find the place	14-15	X							
* Did you make it?	16-18	X							
* Rolling Cubes	19-21	X							
Round-O	22		X						
*[illegible]unding Off	23-24		X						
Station Round Off	25		X						
Shopping Spree	26		X						
Snake	27			X					
Circus Race	28-29			X					
Plus 1	30-31			X					
+ Spotting Sums (9/78)	32-33			X					
* Drop Out	34-36			X					
Column Addition	37			X					
Math War	38			X					
Fireworks	39-42			X					
Flip	43			X	X				
Addition Facts Riddle	44-49			X					
[illegible]t The Teacher	50			X					
*Dealer's Choice	51			X					
*Did you make it? II	52-54			X	X				

* DPA Material
+ Arithemetic Teacher

Topics

Activities	Page No.	PV Place Value	RO Rounding	A Addition	S Subtraction	M Multiplication	D Division	PS Problem Solving	FC Fraction Concept
Beat the Clock	55-56			X					
Circus Facts	57-58			X					
Magic Squares	59-60			X					
* "87"	61-62			X					
Wipe Out	63-64			X					
Let's Go Bowling	65			X					
* Flip the Chip	66-67			X					
* Change the Rule	68-71			X	X				
Addition with Regroup-Riddle	72-73			X					
Su[illegible]action Facts	74				X				
Big League Baseball	75-76				X				
* Race to 100	77-78			X	X				
* One Way	79-82				X				
Subtraction Facts Riddle	83-85				X				
Strange Subtraction	86				X				
* Double Zero	87				X				
* What's the Difference	88-89			X	X				
* Subtract Away To Zero	90-91				X				
Subtraction Riddle	92-93				X				
Beat "It"	94					X			
+ Pinpointing Products 9/78	95					X			
Buzz	96					X			
* Around the Country	97-101					X			
Factory	102-105					X			

* DPA Material
+ Arithemetic Teacher

Topics

Activities	Page No.	PV Place Value	RO Rounding	A Addition	S Subtraction	M Multiplication	D Division	PS Problem Solving	FC Fractio Concept
Multiplication Facts Riddle	106-108					X			
Cover the Product	109-112					X			
* Cover-Up	113-115					X			
Multiplication Riddle	116-117					X			
* Ski Down The Mountain	118-119						X		
Computer Breakdown	120-121						X		
Divide and Conquer	122-123								
Inchworm	124-125			X	X	X	X		
* Only For Square	126-127					X	X		
odles	128-130					X	X		
Division Riddle	131-132						X		
Ring the Bell	133						X		
* Remainder Race	134-135						X		
Division Race	136						X		
Math Toe Challenge	137						X		
Division Robot	138-139						X		
Division Bingo	140-141						X		
Division Riddle	142-143						X		
Scrambled Words	144							X	
Spin A Term	145			X	X	X	X	X	
Match-Up I	146			X	X			X	
ch-Up II	147					X	X	X	
Match-Up III	148-149			X	X	X	X	X	
Around The Clock	150-157							X	

* DPA Material
+ Arithemetic Teacher

Topics

Activities	Page No.	PV Place Value	RO Rounding	A Addition	S Subtraction	M Multiplication	D Division	PS Problem Solving	FC Fraction Concept
Run-A-Risk	158-163			X	X	X	X	X	
Money Bingo	164-170							X	
Rub Out	171							X	
Problem Slide	172-177			X	X	X	X	X	
Mix and Match	178-187			X	X	X	X	X	
Leap Frog	188-193			X	X			X	
ESTO	194-199			X	X	X	X	X	
Problem Lotto	200-202							X	
Spending Spree	203-208			X	X	X		X	
Fraction Rummy	209-218								X
Fr	219-233								
Casino Fraction	234-235								X
Superman-Batman	236-243								X
Old Fraction	244-250			X	X				X
Ring The Bell	251-253								X
Pounce	254-263					X			
+ Problem Solving Tic-Tac-Toe 11/78	264-271			X				X	
Mixed Number Challenge	272-273								X
Activity Pack	274-295			X	X	X	X	X	X
No-Cook Chocolate Cookies	297-298								X
Silly Strings	296							X	
Mr. Steak Menu	299-300			X	X	X	X	X	
The Fast-Faster-Fastest Game	301				X			X	
Temp-O-Wise	302							X	

* DPA Material
+ Arithemetic Teacher

Topics

Activities	Page No.	PV Place Value	RO Rounding	A Addition	S Subtraction	M Multiplication	D Div si
+ My Problem Solving Animal (11/78)	305-308						
All Graph Worksheets	309-318			X	X	X	X
Magic Measurement	319-320			X	X	X	X
Word Hunt	321-322						
A Class Party	323-324			X	X	X	X
At The Corner Store	325-328			X	X	X	X

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PLACE VALUE

(CODED PV)

CONCENTRATION

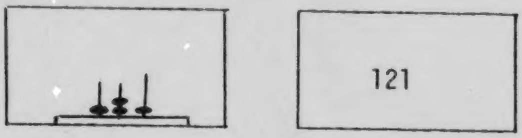
Objective: To provide practice recognizing place value in numerals as represented on an abacus.

Activity: For two children or a small group.

Materials:

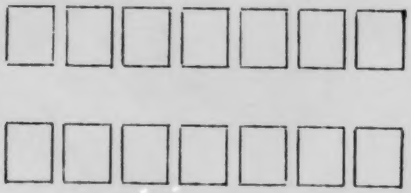
One set of 14 oak tag cards (3" x 5") - 7 cards with abacus pictures representing specific numbers and 7 cards with the numerals corresponding to the pictures.

Example:



Procedure:

The cards are mixed and placed face down on the table in a 2 by 7 array:



The first child selects any two cards and turns them face up, leaving them in place. If the two cards represent the same value the child keeps them and takes another turn. If the cards do not "match" they are placed face down and the next child selects two cards. The child with the most "matches" is the winner of the game.

NOTE: With less mature children, 14 cards seem to be a manageable number of cards for this activity. It eliminates the problem of a prolonged search for a "match," discourages random guessing and provides closure in completing the activity. The teacher may prepare several sets of 14 cards each, rather than use more cards in one set. Placing the cards in an array seems to help the child remember where a particular card is and may help develop the notion of ordinals. (1st card, 2nd card, etc.)

Extensions:

Concentration is an activity which may be used to practice almost any mathematical concept or skill:

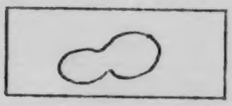
A. Expanded form of numerals

121	100 + 20 + 1

B. Basic facts

7	3 + 4
12 ÷ 3	4

C. Geometric ideas

	simple closed curve

ABACUS CRISS-CROSS

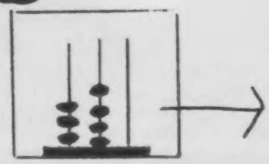
Objective: To provide practice reading 3 digit numerals as represented on an abacus.

Activity: For two or three children.

Materials:

Game board made on (9" x 14") oak tag

Example:



0	3	8	20	26	52	80	93	100	103
110	136	160	182	205	215	230	300	301	310
340	389	398	420	463	481	502	520	570	588
616	630	644	660	707	717	770	794	800	808
840	877	900	903	910	913	930	951	980	999

Set of 60 abacus cards made from oak tag (2" x 4") each one representing a different numeral on the game board. Some additional cards with numerals not shown on the game board may be included.

Colored tokens - about 15 of one color for each child.

Example:

Bob (red), Jane (yellow), etc.

Procedure:

The cards are shuffled and placed in a pile face down. Each child takes a turn selecting a card and placing his colored token in the appropriate box on the game board. The first child to get three in a row, column, or diagonal wins.

Extensions:

1. The first child to get 4 in a row wins.
2. Different cards and game boards may be made up to practice other skills:
    - A. Expanded notation
    - B. Operations - sums, differences, products or quotients may be shown on the game board with their related problems on the cards.

PLACE-VALUE PROBE

Objective: To provide practice in understanding place value through expanded numerals.

Activity: For small group (3 to 6 players).

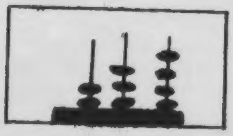
Materials:

Make twelve sets of three cards each on 3" x 5" cards. Mark each set so it contains the same number expressed in three ways.

Example:

234

200 + 30 + 4



Procedure:

1. The dealer shuffles the cards and deals them all to the players.
2. Players must organize their cards into books, matching the three cards which express the same number. Players who have three cards of a kind put them face up where all players can see them.
3. The first player asks any one of the other players for a card to match one of the pairs or single cards he holds. He must ask for a card by name. For example: "I want you to give me the expanded form of 234." If he gets the card to complete a book he puts the book face up on the table and takes another turn. If he gets a card but does not complete a book, he puts the card in his hand and takes another turn. If he does not get a card, his turn is over for the round.
4. Play continues with each player taking his turns in order.
5. The game is over when one player is rid of all his cards.
6. A player scores three points for each book he completes. He loses two points for each pair of cards and one point for each single card he holds.
7. The winner is the player with the most points.

FIVES AND TENS

Objectives: To provide reinforcement for recognizing multiples of ten. To provice practice identifying the number of tens in a given number.

Activity: For a small group or the entire class.

Materials:

Blank Bingo cards (one for each child)

Example:

B	I	N	G	O
		X		

Set of 24 (2" x 2") oak tag calling cards (see below)
Master check sheet (see below)
Tokens - about 25 for each child

Procedure:

Write the 24 numerals from the master check sheet on the chalkboard. Each child then copies these numerals randomly on his Bingo card. The calling cards are shuffled and selected one at a time by the "caller" (this may be the teacher or a child). The children use the tokens to cover each number as it is called. The called cards are then placed in the appropriate space on the master check sheet.

The first child to completely fill a row, column, or diagonal is the winner. As a check, that child must call back the "ten name" (230 = 23 tens) for each of his numerals.

Extensions:

Bingo is one of the simplest and most versatile games used in the classroom. Other calling cards and check sheets may be developed to practice and reinforce:

A. Basic facts - addition, subtraction, multiplication, division.

B. Expanded forms of numbers, etc.

7+6

5 more than 12

(10×6)+4

(12÷3)+5

Fives and Tens - Con't.

Calling Cards

5 Tens	0 Tens	1 Ten	14 Tens
8 Tens	7 Tens	16 Tens	10 Tens
2 Tens	30 Tens	90 Tens	100 Tens
11 Tens	92 Tens	50 Tens	150 Tens
32 Tens	3 Tens	23 Tens	99 Tens
9 Tens	20 Tens	15 Tens	46 Tens

Master Check Sheet

0	10	20	30
50	70	80	90
100	110	140	150
160	200	230	300
320	460	500	900
920	990	1000	1500

Magic Message In Color

Objective: To provide practice recognizing value up to thousands.

Activity: for any number.

Materials: Ditto sheet for each child. (See next page)

Procedure:

1. Refer to ditto - all directions are printed on ditto sheet.

A MAGIC MESSAGE IN COLOR

804	634	924	6,832	2,694
14	9,327	4	224	75
6,214	94	64	8,104	704
95	6,792	106	32	9,082
240	29	49	8	40
1,948	602	643	29	964
42	746	2,145	47	742
7,627	10	905	6,209	37
23	453	5,418	927	8
469	2,368	400	19	687
471	403	2,492	495	468
21	5,028	782	60	2,396
4,192	4,802	4,615	4,829	4,312
27	201	8,207	69	4,920
4,216	4.802	4,973	4,230	4,791
86	9,073	208	5	29
34	50	824	14	6,874
94	1,276	3,624	9	294
1,204	604	74	78	564

Color the box green if the "4" shows ones.
Color the box blue if the "4" shows tens.
Color the box red if the "4" shows hundreds.
Color the box orange if the "4" shows thousands.
Turn the paper and read your colored message.

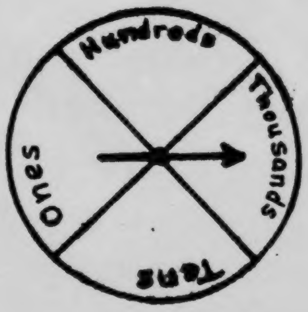
WRITE THE MESSAGE HERE: ______________________________

FIND THE PLACE

Objective: To provide practice identifying place values.

Activity: for a small group or the entire class.

Materials:



Set of 30 oak tag cards each with different 4 digit numeral

Spinner with the names of each place value on it

Recording sheet for each child

Procedure:

Each child is dealt a numeral card. He writes this NUMERAL on his recording sheet. One child spins the spinner and reads the PLACE indicated, e.g., tens, hundreds, etc. This PLACE is recorded by all the children. Each child checks his place value card to identify the digit in that place and records the VALUE of his digit as shown below. New cards are dealt and the activity continues for three more turns (arbitrary). The children then add all their numbers in the VALUE column. The child with the greatest sum is the winner.

P - 15

FIND THE PLACE

Name Peggy

Turn	Numeral	Place	Value
1	7,451	Tens	_ _,_ 5 0
2	3,167	units	_ _,_ _ 7
3	6,572	thousands	_ 6,0 0 0
4	4,732	tens	_ _,_ 3 0
		Total	_ 6,0 8 7

FIND THE PLACE

NAME______________________________

Turn	Numeral	Place	Value
1			_ _'_ _ _
2			_ _'_ _ _
3			_ _'_ _ _
4			_ _'_ _ _
			Total _ _'_ _ _

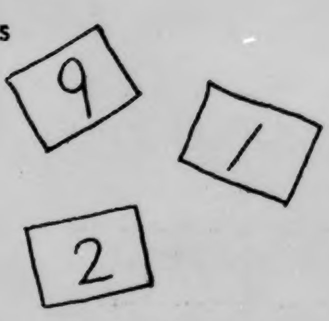
Turn	Numeral	Place	Value
1			_ _'_ _ _
2			_ _'_ _ _
3			_ _'_ _ _
4			_ _'_ _ _
			Total _ _'_ _ _

Turn	Numeral	Place	Value
1			_ _'_ _ _
2			_ _'_ _ _
3			_ _'_ _ _
4			_ _'_ _ _
			Total _ _'_ _ _

DID YOU MAKE IT?

Objectives: To reinforce the significance of place value.
To provide practice reading 4 digit numerals.

Activity: For a small group or the entire class



Materials:

Set of 10 (5" x 6") oak tag cards each with a different digit (0-9)

Recording sheet for each child.

Procedure:

The teacher shuffles the cards and selects one card at random to show to the group. Each child writes this digit in any one of the four places in the first set of boxes on his recording sheet. This card is now set aside and another one is randomly picked and shown. The children write this digit in one of the remaining places. The activity continues until all four places are filled. The winner is the child (children) who has the greatest 4 digit numeral.

Th	H	T	U

The teacher may wish to pose such questions as:

1. Who thinks they have made the greatest numeral? (invite some of the children to read their numerals and record them on the chalkboard.)
2. Does anyone have a numeral whose value is greater than these?
3. Which of these numerals is the greatest? How can we tell?
4. Is this the greatest possible numeral we can make using these digits?

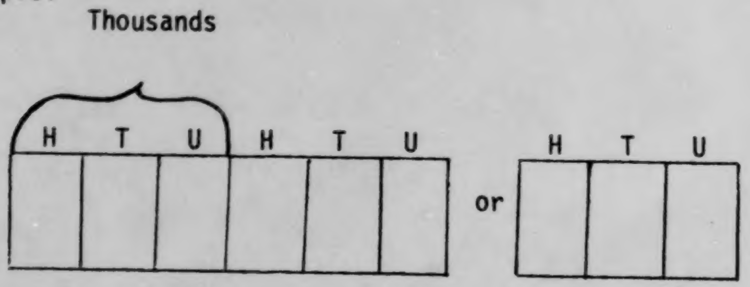
The teacher may ask the children to order the numerals from greatest to least.

Several rounds may be played.

Extensions:

1. The game may be played using more or less than 4 digits.

   Example:



2. Alternative rules may be used:

   a. Lowest numeral wins.
   b. Highest odd numeral wins, etc.
   c. Numeral closest to 1500 .....
   d. Have the children select or make up rules.

DID YOU MAKE IT?

NAME________________________

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

Th	H	T	U

ROLLING CUBES

Objectives: To reinforce the learning of place value in multi-digit numerals.

To provide practice ordering multi-digit numerals.

To provide opportunities to recognize the changes in numerals when adding 10's, 100's or 1000's.

Example:

4761 + 10 = 4771
4761 + 100 = 4861
4761 + 1000 = 5761

Activity: for one child.

Materials:

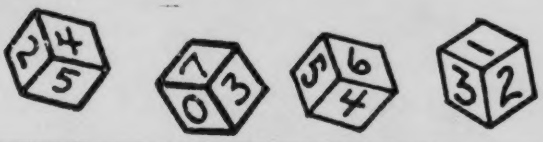
Numeral cubes with digits ranging from 0-9 on each (The number of cubes depends upon the child's readiness - 3 cubes for 3 place numerals, 4 cubes for 4 place numerals, etc.) No more than two zero's should be used!

Recording sheet for each child.

Procedure:

The child rolls the cubes and records his digits in the "Roll" column. He then arranges his cubes to form the "Greatest Number" with the digits he rolled. The activity continues with the child filling in the appropriate numerals in each column. The activity is repeated with the child rolling a new set of digits.

Example:



ROLLING CUBES

P - 11

Name Judy

Roll	Greatest Number	Greatest Number +10	Greatest Number -100	Least Number	Least Number +10	Least Number -100	
47,6,1	7,641	7,651	7,541	1,467	1,477	1,367	

Extensions:

1. The last column on the recording sheet has been left blank to provide for individual assignments. Some suggestions for that column include:
    a. Write your numeral in expanded form.
    b. Find the difference between your greatest and least numbers.
    c. Add your greatest and least numbers.
    d. Add 1,000 to your greatest number.
    e. Add 999 to your greatest number.
    f. Subtract your greatest number from 10,000.

2. By changing the headings on the recording sheet the activity may be used to practice one specific idea.

Example:

Observing how a numeral changes when adding multiples of tens - greatest number; greatest number + 10; greatest number + 100; greatest number + 1,000, etc.

ROLLING CUBES

Roll	Greatest Number	Greatest Number +10	Greatest Number -100	Least Number	Least Number +10	Least Number -100	

ROUNDING

(CODED R)

ROUND-O

Objective: To provide practice in rounding off numbers to nearest tens.

Activity: for small group or entire class.

Materials:

Caller's master sheet listing all numbers called.
Caller cards, marked with numbers to call and answers.
(Answers written in lower right hand corner.)

Example:

38
40

Class round-o cards showing multiples of ten.

Example:

ROUND-O				
30	50	20	60	90
80	70	10	40	50
40	60	free	80	100
30	20	50	90	70
60	10	30	80	50

Markers

Procedure:

1. The caller picks a card and calls the number. Example: 38 on the master sheet would be rounded to 40.
2. If rounded off number is on student's Round-O card, he places a marker over that rounded number.
3. Player getting 5 in a row, in a column, or diagonally, calls "Round-O." He then checks his answers against the master sheet. If he is correct, he becomes the caller for a new game.

Extension:

1. Use cards with hundreds or thousands.

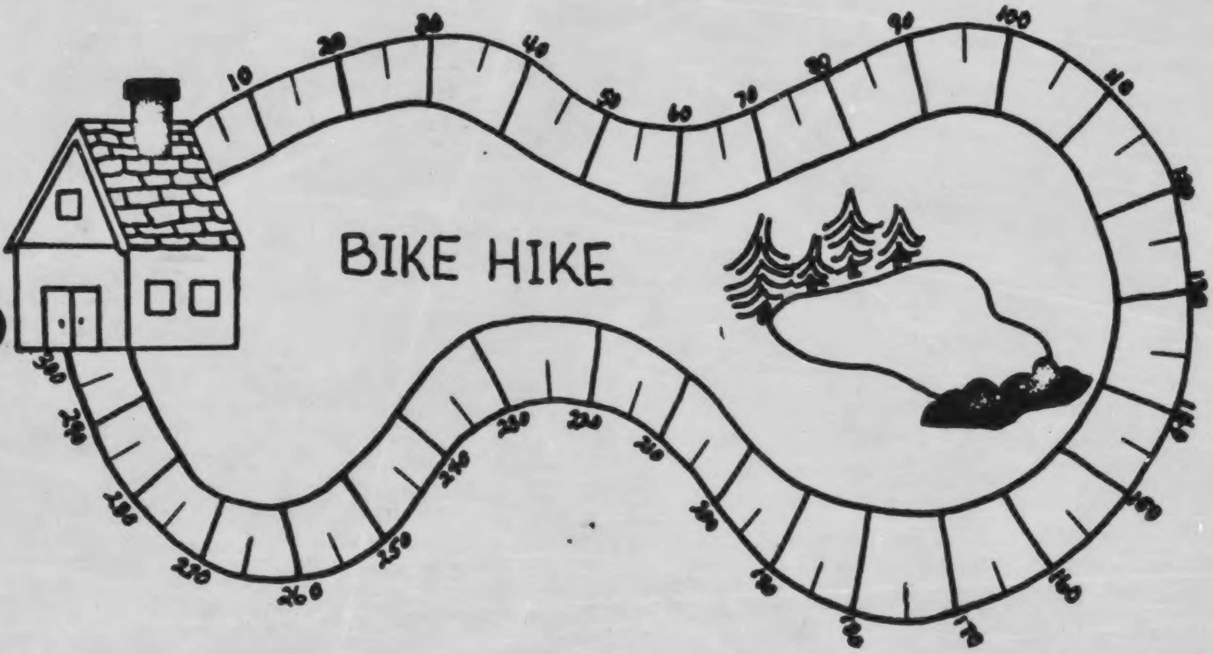
ROUNDING OFF

Objective: To provide practice in rounding off numbers to nearest ten.

Activity: for small groups.

Materials:

Game board made on 15" x 20" oak tag folder.
Two different color cubes (one to represent the tens and one to represent the ones place) numbered, omitting zero on both cubes.
A different token (bike) for each child.


BIKE HIKE
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270
280
290
300

Procedure:

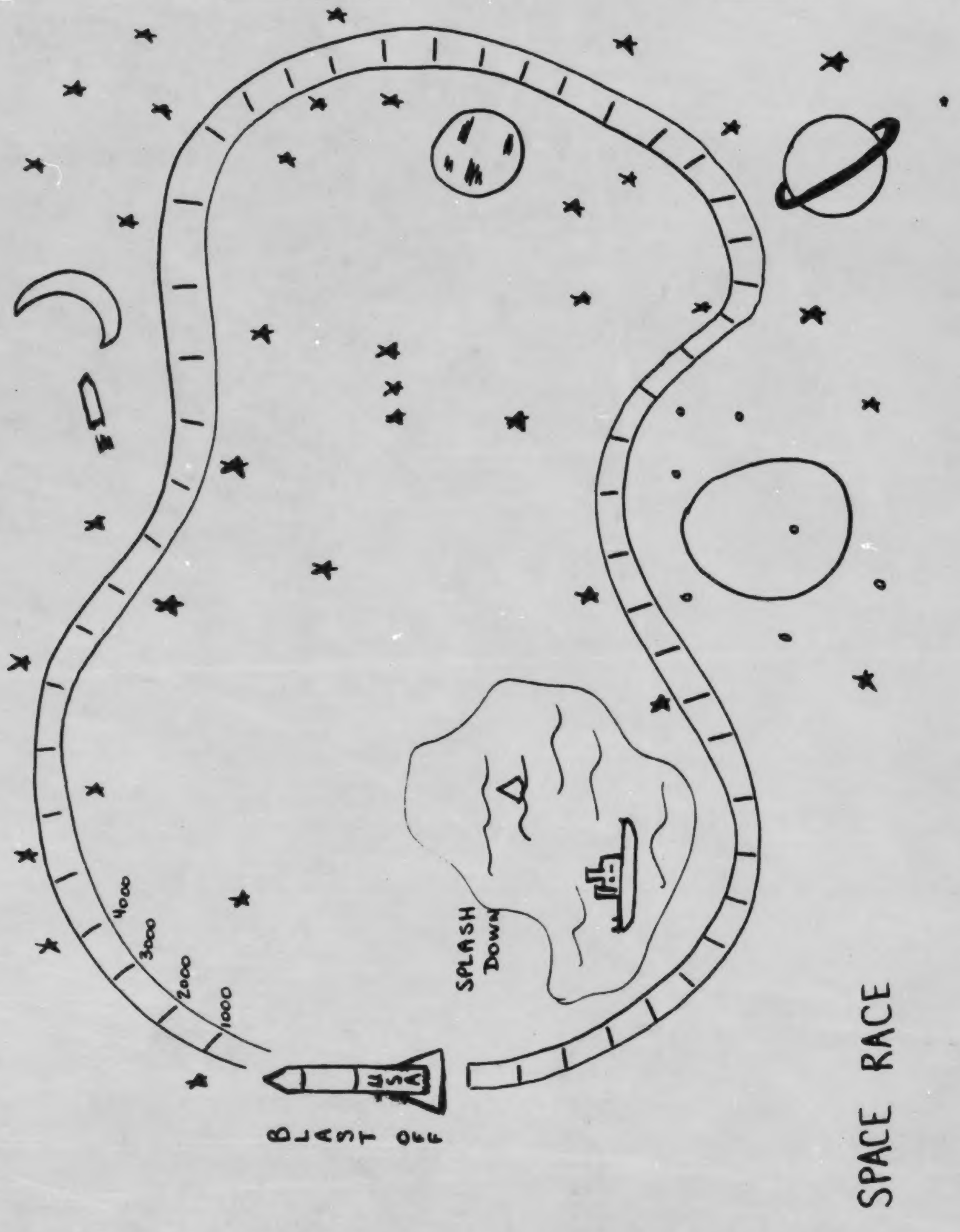
1. Each child rolls cubes. Child with the highest rounded off number goes first.
2. Each player in turn rolls cubes, rounds the number off and moves that number of spaces indicated by the rounded off number.
3. The first child to reach home, wins.

Extensions:

1. Multiply number cubes together, disregarding color. Find the product and round it off, then move ahead the rounded off product. (Example: 6 x 3 = 18, rounded off to 20. Player moves ahead 20.)

2. Make a space game board, using thousands to be rounded off. Increase numbers on dice.

3. Use 3 dice.


SPACE RACE
BLAST OFF
USA
1000
2000
3000
4000
SPLASH DOWN

STATION ROUND OFF

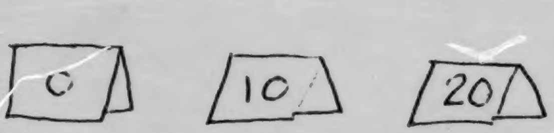
Objective: To provide practice in rounding off numbers.

Activity: for small group or entire class.

Materials:

9" x 12" oak tag station cards, labeled from 0 to 100 by tens. Cards are folded over to stand up and placed around the room.

Examples:



3" x 5" student cards numbered randomly, from 0 to 100.

Examples: 27, 82, 35, etc.

Procedure:

1. Place station cards around the room.
2. Divide class into small groups.
3. Place all student cards in one pile. Have first team member from each group come up and draw a card and move to the station corresponding to the number he is rounding off. (Example: student card 23 should move to station card marked 20.)
4. Then each child reads back his number. If he is correct, his team gets one point. If he is incorrect, his team does not get a point. Play continues until each team has had the same number of turns. Each child discards student card and returns to his seat.
5. Team with the most points at the end of the game wins.

Extensions:

1. Teacher may substitute higher numbers for the lower numbers. (hundreds, thousands for tens.)
2. Vary station cards by combining numbers such as cards reading 110, 120, 130, ... Child then rounds to nearest ten, hundred, etc. Example: 123 to nearest 10 would move to station card 120.

SHOPPING SPREE

Objective: To provide a real-life experience in the use of rounding off numbers.

Activity: for small group or entire class.

Materials:

Ten to twenty priced objects.
Dittos for each child listing names of the objects and having a space for the cost and the rounded off cost.

Procedure:

1. Prepare a ditto with space for listing each item's name actual cost, and rounded off cost. (Teacher may have items listed on ditto or have children write them as they move from item to item.)
2. Teacher moves from item to item and with the help of the students, checks the rounded off cost of each item.

Extensions:

1. Using rounded costs, answer questions on another sheet, such as:
    a. Pat bought a candy bar and a box of cereal. About how much did he spend? __________
    b. Jane bought a can of soda and Pat bought a half gallon of milk. About how much more did Pat spend? __________
    c. Andy bought an apple and a half gallon of milk. About how much change did he receive if he paid with $1.00? __________
2. Use higher priced items (desks, equipment, doors, windows, cars, etc.)

ADDITION FACTS

(CODED A)

A

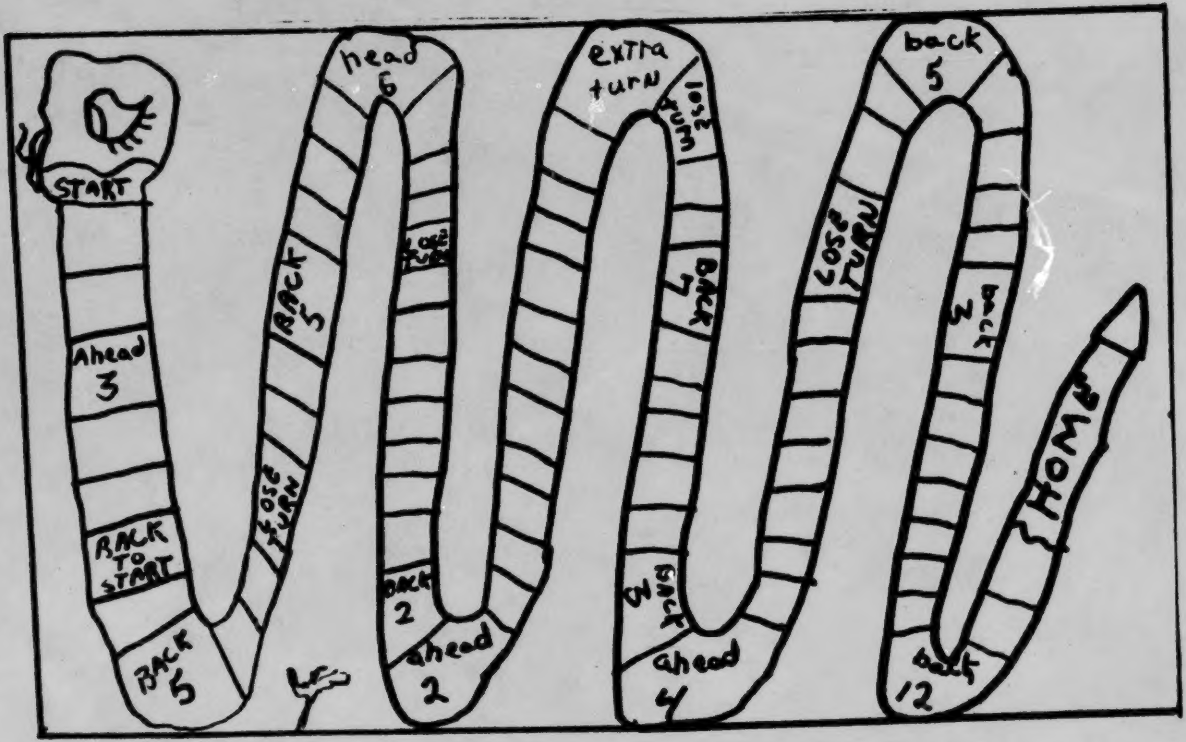
SNAKE

Objective: To provide practice using basic addition facts.

Activity: for two players.

Materials:

Game board (see model below)
one pair of dice
two markers


START
Ahead 3
BACK TO START
BACK 5
LOSE TURN
BACK 3
head 6
LOSE TURN
BACK 2
ahead 2
extra turn
lose turn
BACK 7
back 3
ahead 4
LOSE TURN
back 5
back 3
back 12
HOME

Procedure:

1. Two players roll dice to determine who goes first. Players roll the dice, add the two numbers and move accordingly.

2. If a player lands on a marked space, he must follow the directions. The first player to reach the "snakes tail" is the winner.

Extension:

1. Use for subtraction facts.

2. Use for multiplication facts.

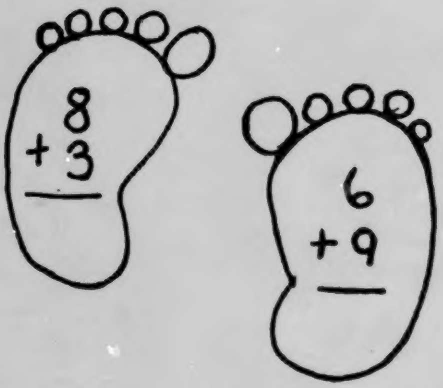
CIRCUS RACE

Objective: To provide practice using the basic addition facts.

Activity: for two children.

Materials:

Game board (see next page)
two markers
footprints

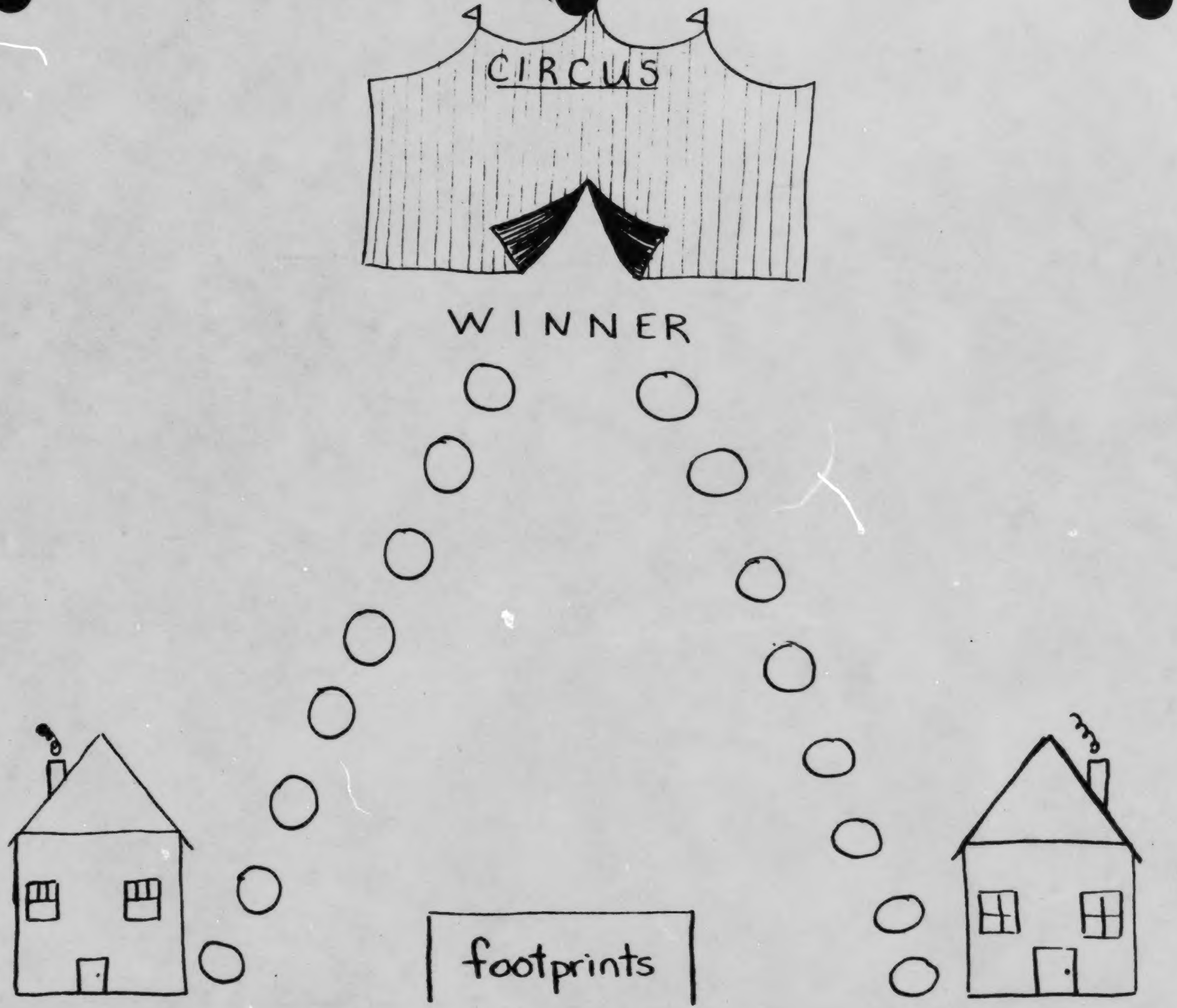


Procedure:

1. Players take turns selecting footprints from the envelope (without looking). If the player can correctly solve the problem, he may place the footprint on his path.
2. The first player to reach the circus is the winner.

Extensions:

1. Make footprints with larger sums.


CIRCUS
WINNER
footprints

PLUS 1

Objective: To provide practice with basic addition facts.

Activity: for small group.

Materials:

Die marked 0-5
Game board (see following page)
Colored markers (different color for each player)

Procedure:

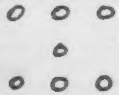
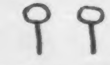
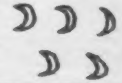
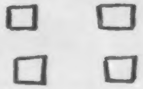
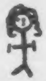
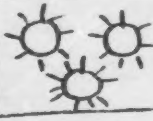
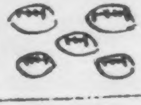
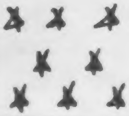
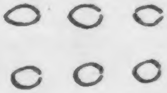
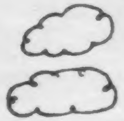
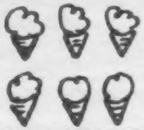
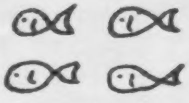
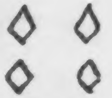
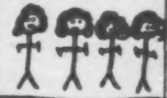
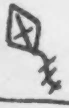
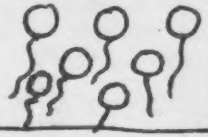
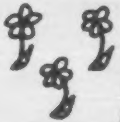
1. Each player selects a color and gathers his markers. Each time he plays he places his colored marker on the board. Each player uses only four colored markers which may be moved around in the way that is most advantageous to the player.

2. The first player rolls the die. He covers a word, set, or numeral that is the sum of the number on the die plus one.

3. The first player to get four of his markers in a row wins the game.

Extension:

1. Instead of plus 1, sum can be die plus 2, plus 3, plus 4, etc.

	1	four	5.	3		one	
6			six		three	6	2
2	nine	3		8		two	six
one	4	one		nine	7	7	
8		4	three			two	9
	seven			5	eight	1	
	two		9	four	7		five

SPOTTING SUMS

Objective: To provide practice in basic addition facts.

Activity: for two children.

Materials:

Teacher made game board or ditto of game board (see next page)
Markers of two different types or colors.

Procedure:

1. Select any two numbers from the nine numbers listed on the game board.
2. Add these two numbers.
3. Mark the sum of these two numbers on the game board with markers representing "X" and "O."
4. The winner is the first one to get three markers in a row. (Students should try to block each other from getting three in a row.)

Extensions:

1. Game boards with larger numbers (sums).

X ____________________

O ____________________

1	2	3
4	5	6
7	8	9

GAME BOARD

10	5	8	3
2	12	16	15
14	17	11	6
7	4	13	9

A

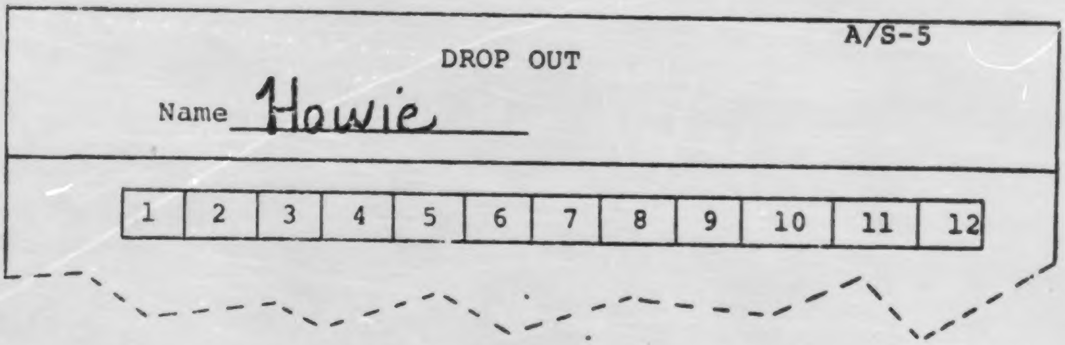
DROP OUT

Objectives: To provide practice for learning the basic addition facts.
To provide practice renaming numbers.
To provide an opportunity to develop problem solving strategies.

Activity: for two children

Materials:

2 Numeral cubes each numbered 1-6
Activity sheet for each child (see sample below)
12 tokens for each child
paper for recording for each child



A/S-5

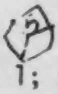
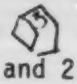
DROP OUT

Name Howie

1	2	3	4	5	6	7	8	9	10	11	12

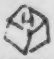
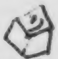
Procedure:

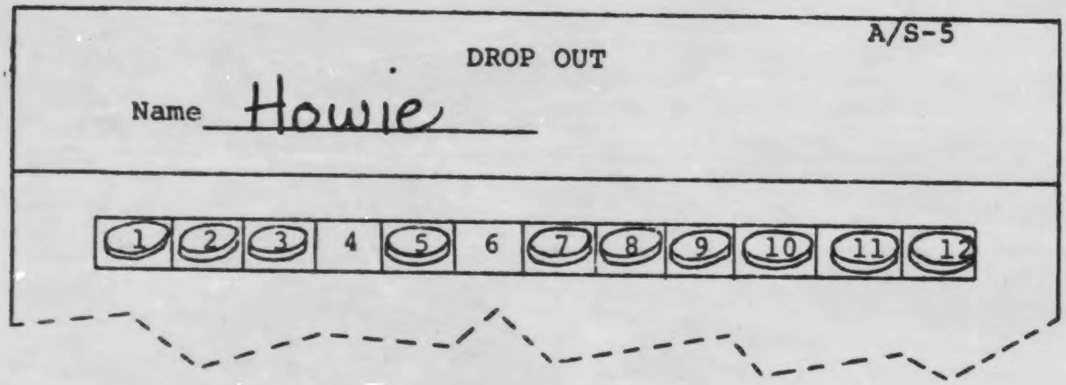
1. The first child rolls the cubes and finds the sum of the numbers he rolled. On his activity sheet he then covers this sum or any combination of numbers adding to that sum with his tokens.

   Example: Joe rolls a  and a . He can cover 8; 7 and 1; 5 and 3; 6 and 2; or 4, 3 and 1, etc.

2. Numbers that are covered may not be used again. The game continues with the children taking turns, for as long as each child is able to cover numbers adding to the sum of his roll.

3. When a child is no longer able to do this he must add the numbers not covered on his sheet. This total is his score for the game.

   Example: It is Howie's turn. He rolls  + , however, he has covered all his numbers except 4 and 6.



4. He is not able to name a 7 with these 2 remaining numbers so the game ends for him. He then adds 4 and 6 to get his score. The other child may continue until he no longer is able to cover the appropriate numbers.

5. The two children compare their scores after each game - the one with the lowest score wins!

Extension:

After several games have been played, the "grand winner" is the child with the lowest "grand total" score for all the games played.

DROP OUT

NAME________________________

1	2	3	4	5	6	7	8	9	10	11	12

Score_________

1	2	3	4	5	6	7	8	9	10	11	12

Score_________

1	2	3	4	5	6	7	8	9	10	11	12

Score_________

1	2	3	4	5	6	7	8	9	10	11	12

Score_________

Total Score_________

A

COLUMN ADDITION

Objective: To provide practice with basic addition facts.

Activity: for individuals, small group or entire class.

Materials:

Dittos

6	4	3	3	7	2	1
2	4	3	7	8	9	8
1	2	4	3	3	4	1
1	3	6	4	6	3	5
3	5	5	3	2	1	4
8	1	1	7	1	2	8
9	6	4	3	9	7	2

Procedure:

1. Draw a loop around combinations of addends that equal a sum of 10, across, down or diagonally. Some numbers may go in more than one loop.

Extension:

1. Use sums of 20.

8	7	5	10	5	9	6
6	12	19	10	8	6	7
6	1	13	6	7	8	7
9	14	4	7	5	6	9
5	6	3	11	7	3	4
4	10	10	7	5	3	5
2	5	4	4	13	14	10

MATH WAR

Objective: To reinforce the learning of addition facts.

Activity: for two players.

Materials:

All cards from 2 to 10 from a standard deck.

Procedure:

1. Deal all the cards to the two players.
2. The players hold their piles of cards face-down.
3. Together, they each turn over their top card.
4. The first person to give the correct sum of the two numbers, takes the two cards and adds them to the bottom of his pile.
5. An opponent may challenge an answer at any time. If the challenge is made, the player giving the answer, either by referring to a table or by working out the answer, must prove he is correct.
6. If an answer is wrong, the challenger automatically gets the cards.
7. The person who finishes with all the cards is the winner.

Extension:

1. Follow the same procedure for multiplication.

FIREWORKS

Objective: To provide practice in mental computation of addition problems with three addends.

Activity: for any number.

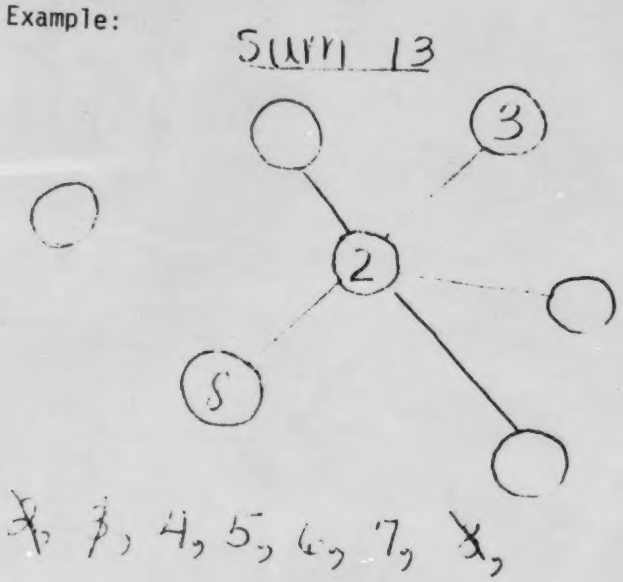
Materials:

Ditto sheets of various problems (see following page)

Procedure:

1. Using the given numbers the child places the correct addends in empty circles. (Must have sequence of 3 addends in a row.)
2. As the child chooses addends he crosses the numbers out at the bottom of the problem.

Example:

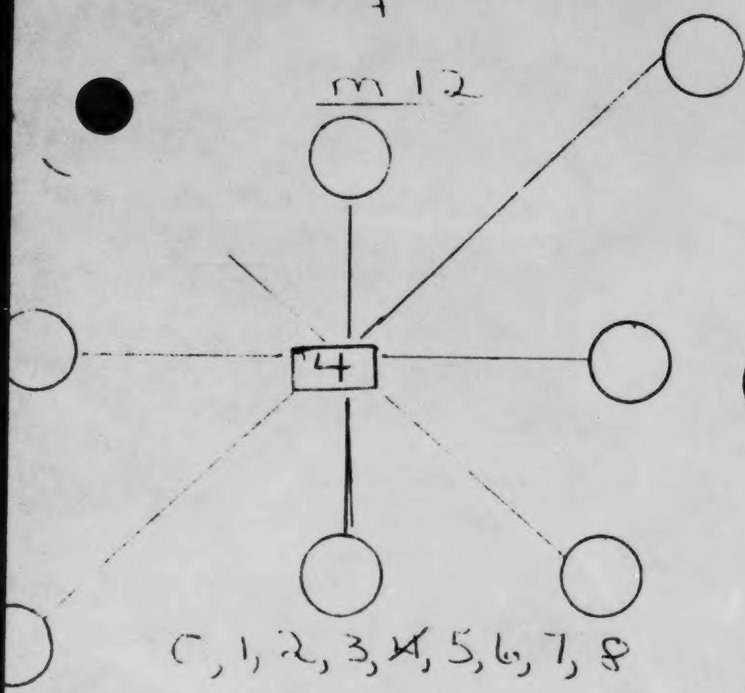


Extensions:

1. Teacher may create more complex problems.

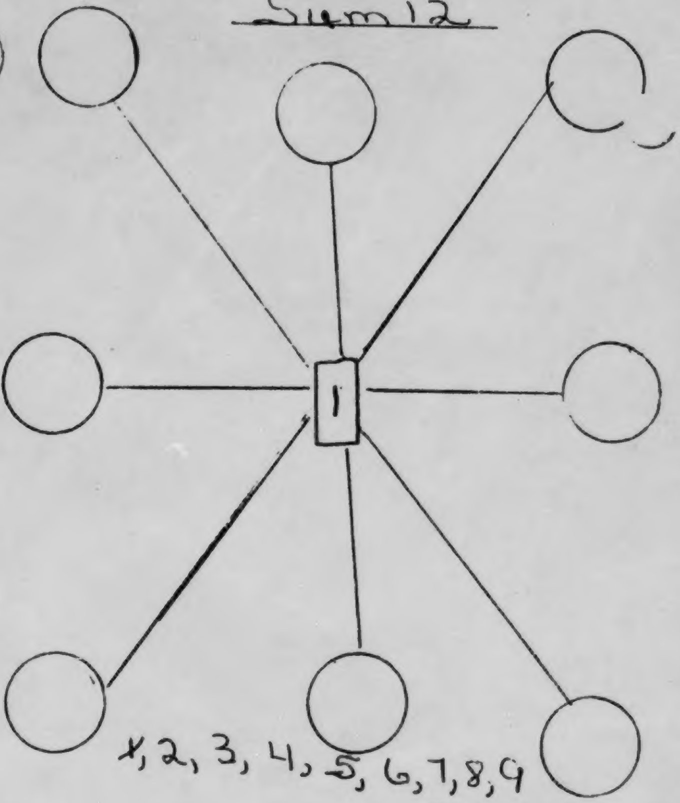
NAME:

m 12



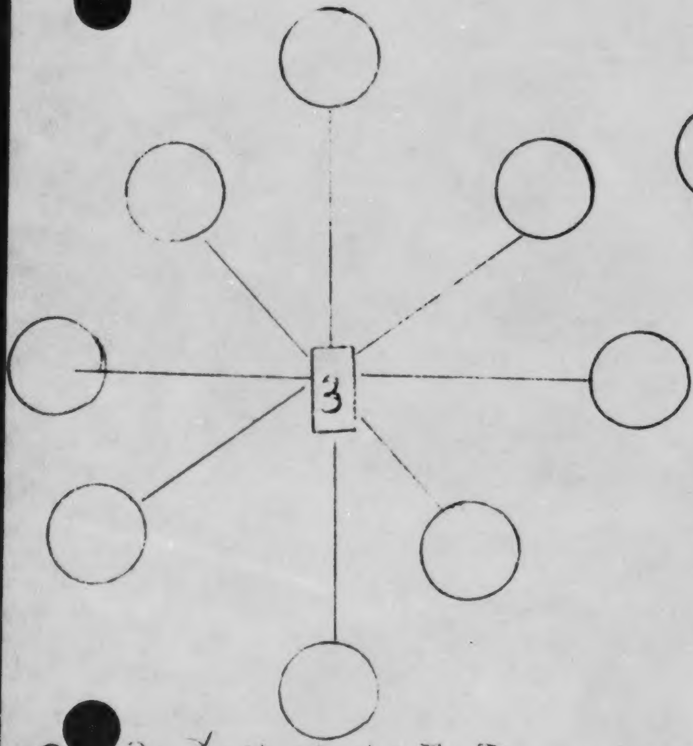
0, 1, 2, 3, ~~4~~, 5, 6, 7, 8

Sum 12



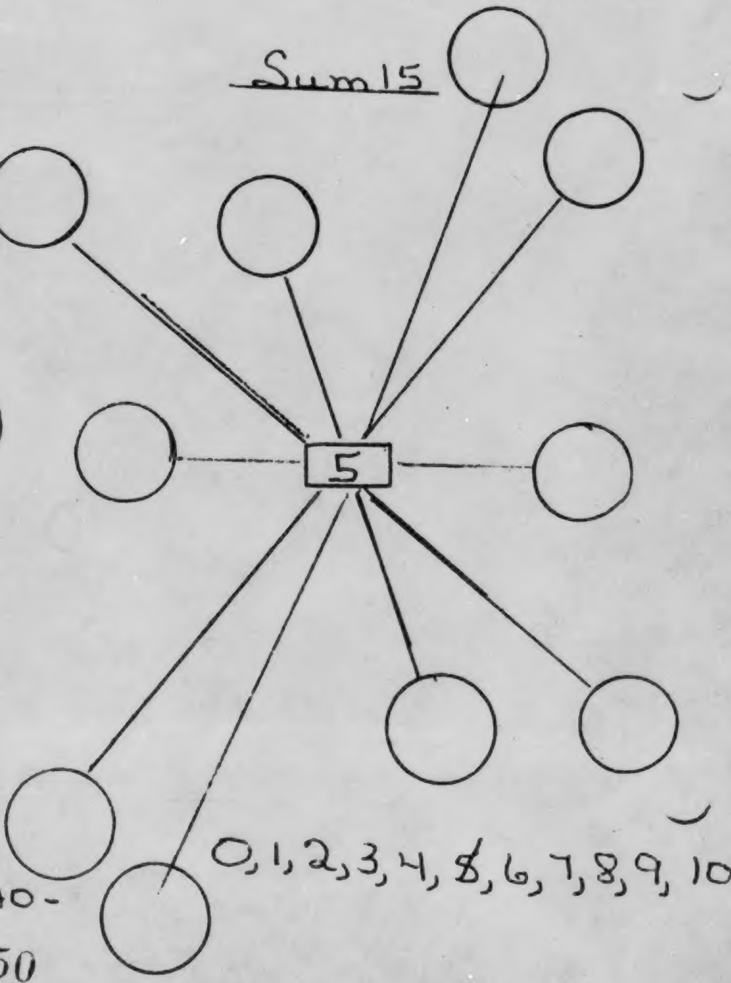
~~1~~, 2, 3, 4, 5, 6, 7, 8, 9

Sum 11



0, 1, 2, ~~3~~, 4, 5, 6, 7, 8

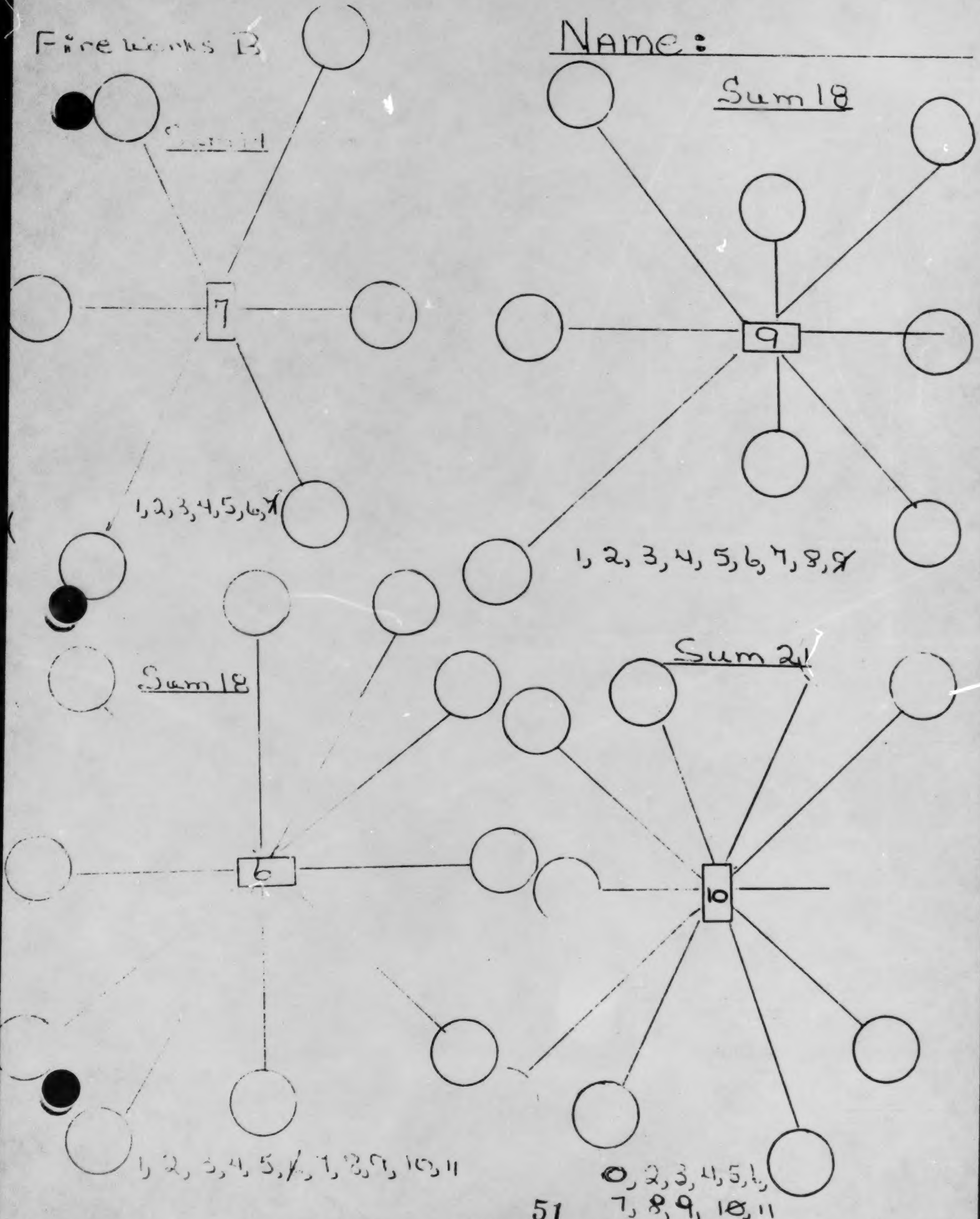
Sum 15



0, 1, 2, 3, 4, ~~5~~, 6, 7, 8, 9, 10

Fireworks B

Name: ______________________


Sum 14
7
Sum 18
9
Sum 18
6
Sum 21
10

1, 2, 3, 4, 5, 6, ~~7~~

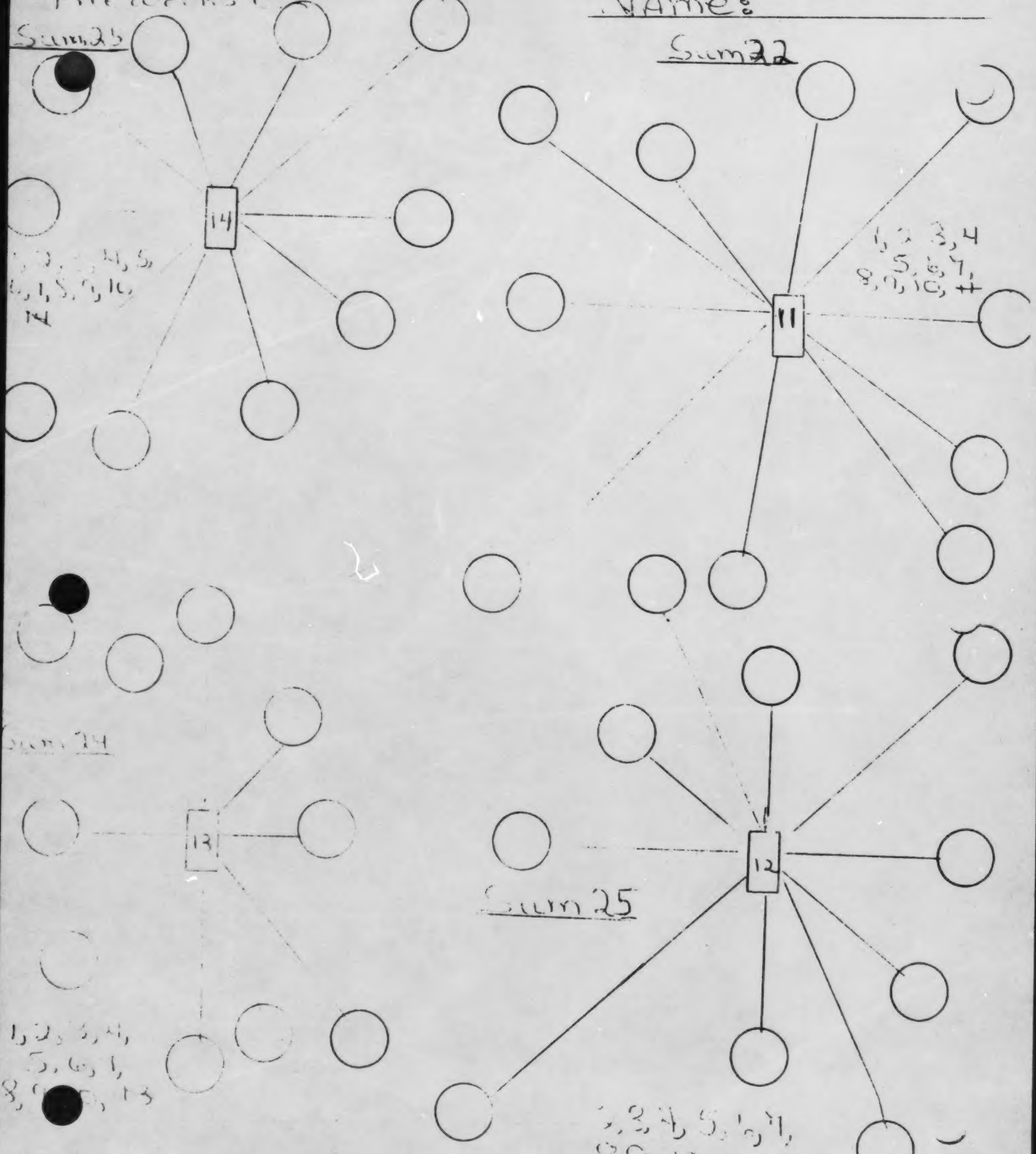
1, 2, 3, 4, 5, 6, 7, 8, ~~9~~

1, 2, 3, 4, 5, ~~6~~, 7, 8, 9, 10, 11

0, 2, 3, 4, 5, 6,
7, 8, 9, 10, 11

Fireworks C

Name: ______________________


Sum 23
14
1, 2, 3, 4, 5,
6, 7, 8, 9, 10,
14
Sum 22
11
1, 2, 3, 4
5, 6, 7,
8, 9, 10, +
Sum 24
13
1, 2, 3, 4,
5, 6, 7,
8, 9, 10, 13
Sum 25
12
2, 3, 4, 5, 6, 7,
8, 9, 10, 11, +2

FLIP

Objective: To provide practice with the addition and subtraction facts.

Activity: for two children and an adult or child who has good recall of the basic facts.

Materials:

All cards between two and ten from a standard deck.

Procedure:

1. Before the game is started, a "Flip" number and process is decided upon. For instance, a "three more than" game could be played.
2. The adult shuffles the cards and then flips one card up at a time and says, "Three more than ________ (Whatever the face value of the flipped card is.)."
3. The first player to give the correct answer gets the card.
4. The winner is the player who has the most cards at the end of the game.

Extensions:

1. The players can be asked to tell a certain number less than the face value (for instance, "Three less than _______.").
2. The adult can mix less-than and more-than directions, or change the number to be added or subtracted each time.

ADDITION FACTS RIDDLE

Objective: To provide practice with addition facts.

Activity: for any number

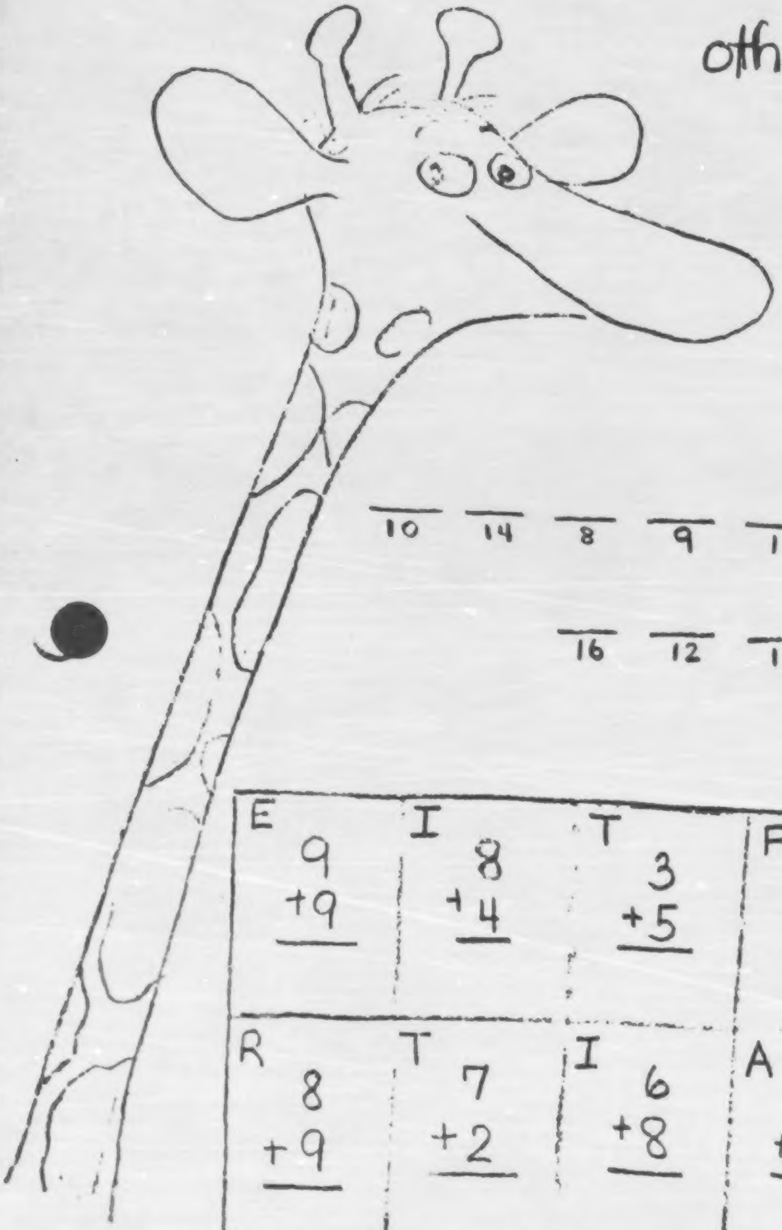
Materials:

Dittos

Procedure:

1. Students solve the equations and answer the riddles.

What do giraffes have that no other animals have?



____ ____ ____ ____ ____ ____
10 14 8 9 11 18

____ ____ ____ ____ ____ ____ ____ ____
16 12 17 7 6 13 15 5

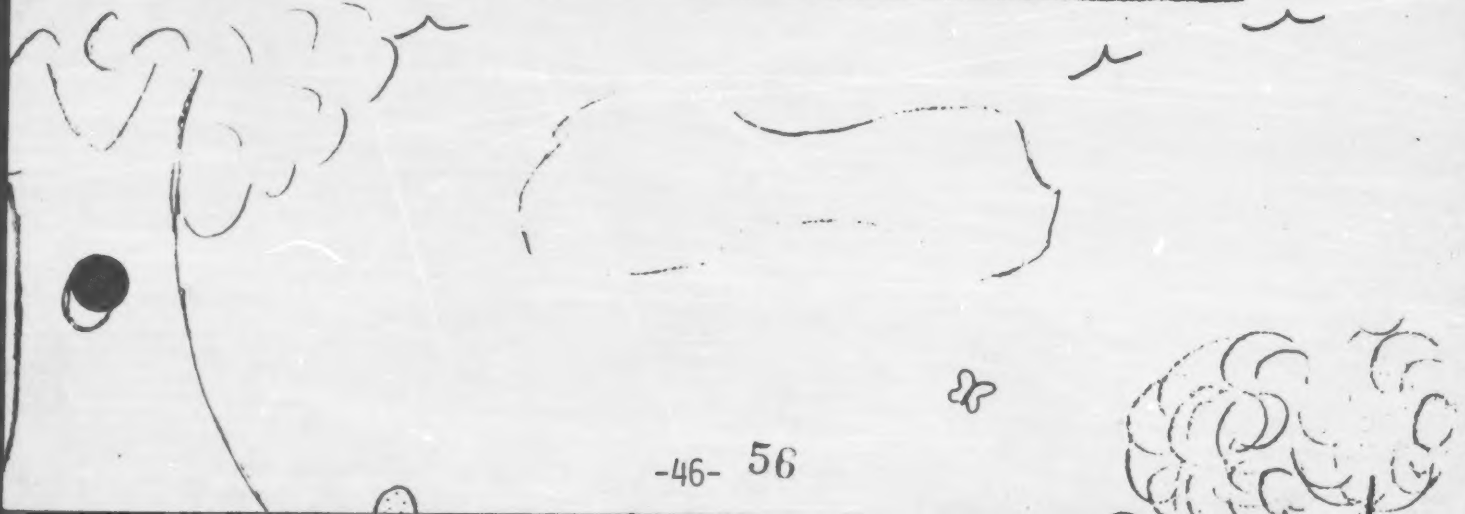
E 9 +9	I 8 +4	T 3 +5	F 7 +6	S 1 +4	G 9 +7	L 6 +4
R 8 +9	T 7 +2	I 6 +8	A 4 +3	L 7 +4	F 3 +3	E 9 +6

What kind of room has no doors, no windows, and no walls?

10

7 12 16 0 18 14 13 11

H 0 + 0	O 9 +5	A 8 +2
S 7 + 9	M 4 + 3	U 3 +9
O 8 +5	M 6 + 5	R 9 +9



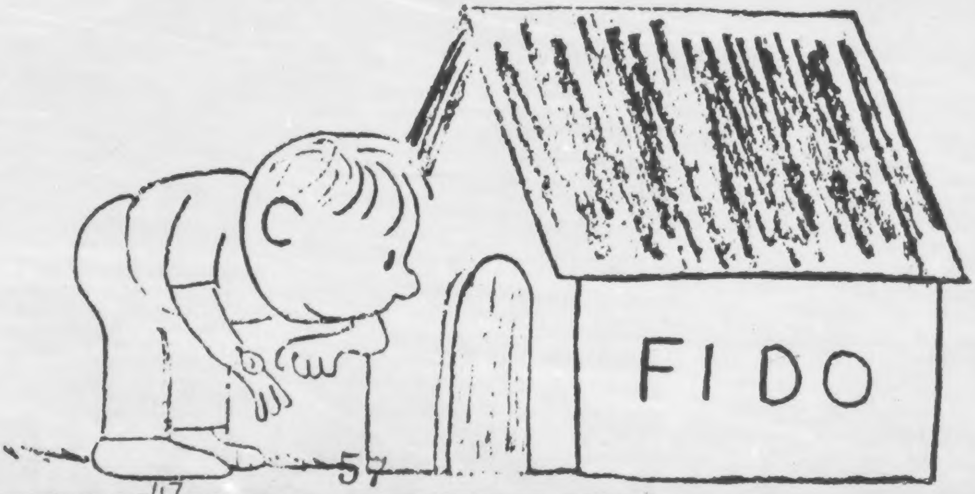
What dog keeps the best time?

____
13

____ ____ ____ ____ ____
7 9 14 5 10

____ ____ ____
16 12 8

T 7 + 7	G 6 +2	A 5 +8
C 4 +1	A 3 +6	D 9 +7
W 7 +0	O 6 +6	H 7 +3

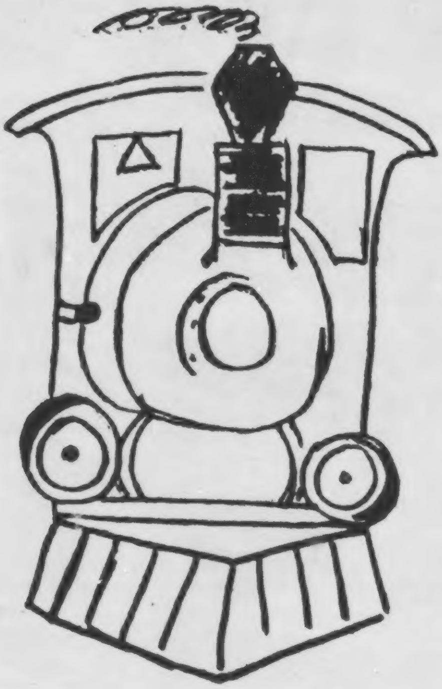


What is red, has bumps, rides a horse, and lives on the prairie?

___ ___ ___   ___ ___ ___ ___
18 12 4   8 11 6 7

___ ___ ___ ___ ___ ___ ___ ___ ___
14 13 15 9 3 17 16 5 10

A 5 + 8	B 2 + 1	E 5 + 2	R 8 + 8
E 4 + 0	T 9 + 9	O 6 + 5	P 1 + 8
L 6 + 2	S 7 + 8	Y 5 + 5	R 3 + 2
R 9 + 5	N 2 + 4	E 8 + 9	H 5 + 7



What holds up a train?

___ ___ ___
10 16 11

___ ___ ___
14 15 13

N 6 + 7	M 5 + 9	A 8 + 8
E 7 +8	B 6 + 4	D 9 +2

Draw your answer on back!

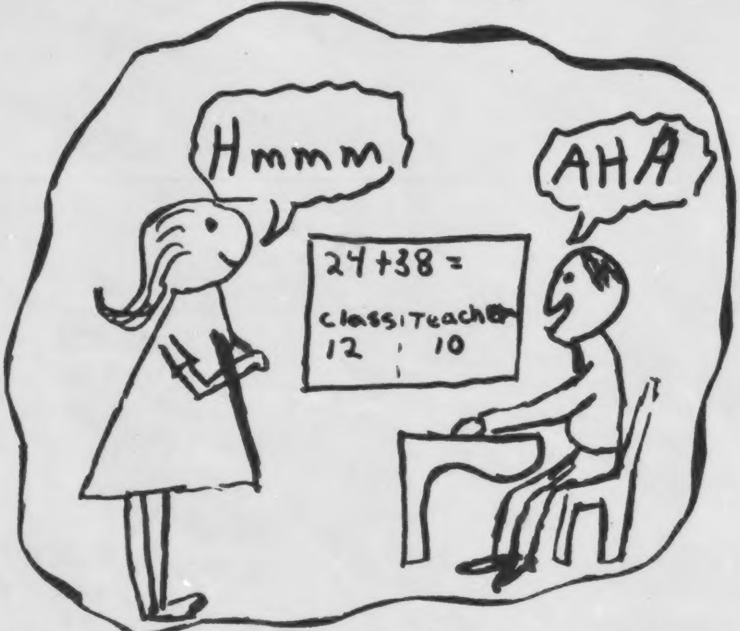
BEAT THE TEACHER

Objective: To practice addition problems with regrouping

Activity: for individual, small group or whole class

Materials:

Blackboard or may use overhead transparency.



Procedure:

1. Teacher writes problem on blackboard. Students then volunteer to answer problem.
2. Teacher chooses a student to answer problem.
3. If student gets it right, class gets point. If incorrect, teacher gets point. (Teacher should have a score-board on the board.) (Teacher could also use an overhead instead of the blackboard.

Extension:

1. May use multiplication over 10.
2. Almost any type math problem.

A

DEALER'S CHOICE

Objectives: To provide practice for column addition of one and two place numbers with more than two addends.

To provide practice in mental computation.

Activity: for a small group

Materials:

Deck of standard playing cards (52)
Grid paper for recording for each child.

Procedure:

1. One child shuffles and distributes at least 10 cards to each player. He then selects one of the four suits - spades, hearts, diamonds or clubs - for that round. The children keep only the cards of that suit and discard all the others. Each child then finds the sum of his cards by recording and adding the value of each card. (cards from 1-10 score face value, Jack = 11, Queen = 12, King = 13)

2. Each child's score is checked by one of the other players. The child with the highest score wins a point for that round. Five points wins the game.

3. For providing practice in mental computation each child must mentally add the value of his cards. The child who claims to have the highest score must add his values aloud so the group can check his work.

DID YOU MAKE IT II

Objectives: To provide practice for addition and subtraction of three place numbers with exchange.

To reinforce the significance of place value.

Activity: for small group or the entire class.

Materials:

Set of 10 (5" x 6") oak tag cards (each with a different digit (0-9)
Recording sheet for each child.

Procedure:

1. The teacher shuffles the numeral cards and selects one card at random to show to the group. The children write the digit shown in any one of the six cells in the first box on their recording sheets.

   Example:

H	T	U

2. The first card is set aside and another one is picked and shown. The children write this digit in one of the remaining cells. When all six cells are filled, the children add the 2 three place numbers they have made. The child (children) who has the greatest sum is named the winner.

   Example:

	H	T	U
	3	2	7
+	8	1	0
	1, 1	3	7

3. The teacher may wish to pose such questions as:

   a. Which children think they have the greatest sum? (Record these sums on the chalkboard.)
   b. Does anyone have a sum whose value is greater than these?
   c. What is the greatest possible sum we can make using these digits?
   d. This is Robert's sum, ______, what were his two numbers?

4. For practicing subtraction, the children would examine the two numerals they formed and circle the greater one.

Example:

H	T	U
2	3	1
4	5	6

$$\begin{array}{r}456\\ \underline{-231}\end{array}$$

5. The difference between these numbers is found and the child (children) having the greatest difference is the winner. Questions similar to those listed for addition may be used.

Example:

a. Who thinks he has the greatest sum (difference)?
b. Jan has this sum (difference),______, what were her numbers?, etc.

Extension:

1. Different rules may be used:

a. The children with the least sum win.
b. The children with the least difference win.
c. The children with the sum closest to ______ win.
d. The children with the difference closest to ______ win.

DID YOU MAKE IT? II

NAME______________________

H	T	U

H	T	U

H	T	U

H	T	U

H	T	U

H	T	U

H	T	U

H	T	U

BEAT THE CLOCK

Objective: To provide practice in adding numbers with regrouping both orally and in written form.

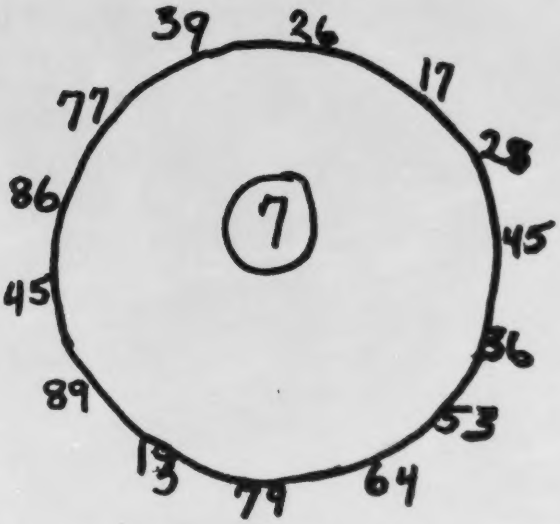
Activity: for small group or whole class

Materials:

chalkboard
sheet of paper

Procedure:

1. Draw the circle on the blackboard.
2. Place the addends around the outside of the circle with a one digit addend in the middle.



3. Split the class into two groups. Each group is to do the problem first on a sheet of tablet paper.

Example:

$$\begin{array}{r} 17 \\ +\ 7 \\ \hline 24 \end{array}$$

4. A student from each group comes to the board and adds the numbers as quickly as possible mentally without their papers while a student from another group records the amount of time it took him. (While he is finding the sums orally, the students at their desks are checking his answers using their papers.) If he makes a mistake he is out.

5. When he has finished another student from another team then tries to find the sums while someone records his time.

6. The group with the students completing the problems orally in the shortest period of time is the winner.

Extension:

1. Vary problems.

2. Use subtraction, or multiplication problems.

A

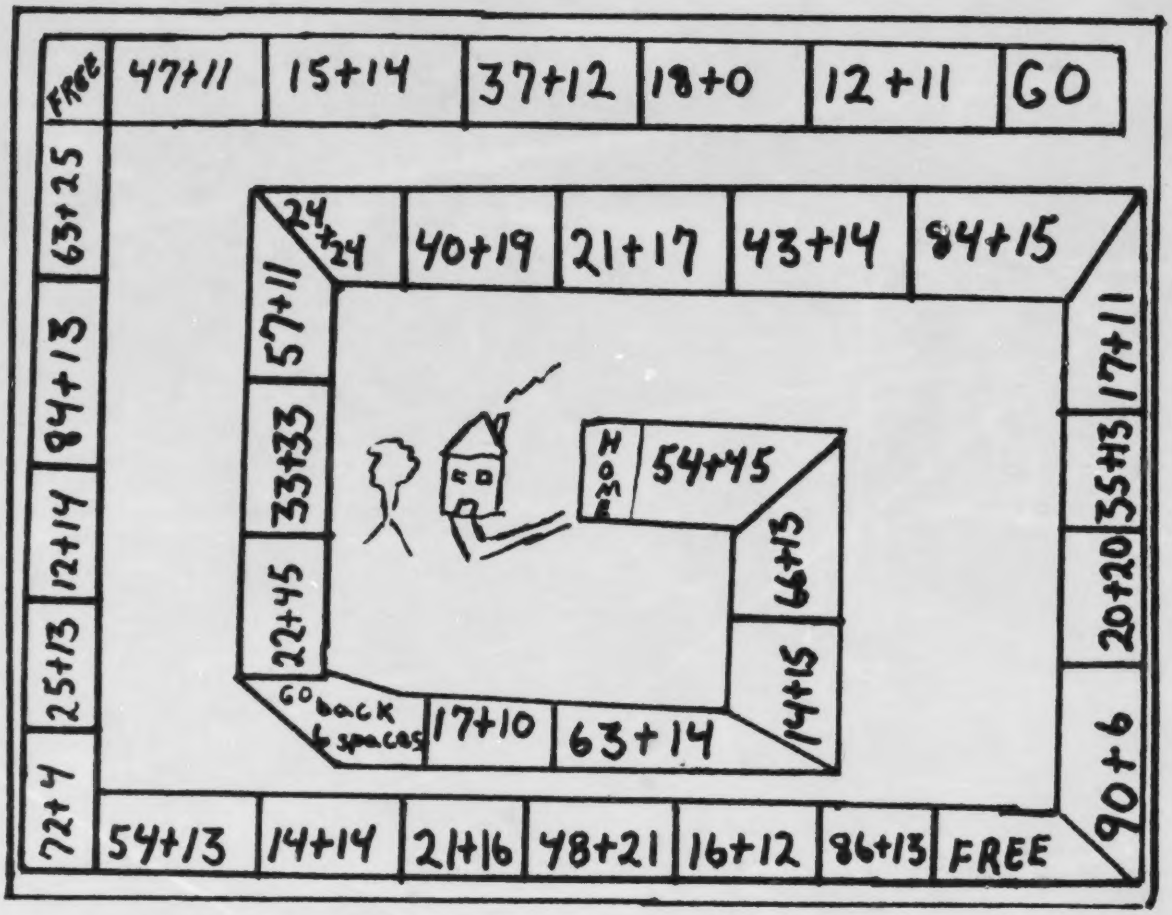
CIRCUS FACTS

Objective: To provide practice in using two place addition without regrouping.

Activity: for two players.

Materials:

one game board done on oak tag
one die
two markers


FREE
47+11
15+14
37+12
18+0
12+11
GO
63+25
84+13
12+14
25+13
72+4
54+13
14+14
21+16
48+21
16+12
86+13
FREE
90+6
20+20
35+13
17+11
84+15
43+14
21+17
40+19
24+24
57+11
33+33
22+45
GO back 6 spaces
17+10
63+14
14+15
66+13
54+45
HOME

Procedure:

1. Two players roll die to determine who goes first. Both players put their markers on "go."
2. To play, players roll the die and move their marker the correct number of spaces. They then must solve the

problem landed on. If a player says the wrong answer he loses his turn.

Extensions:

1. Make game board using larger numbers (ie. hundreds, thousands).
2. Make a game board using different opperations.

MAGIC SQUARES

Objective: To provide practice in adding one and two digit numbers with regrouping.

Activity: for one child or entire class.

Materials:

A copy of the ditto sheet for each child (see following page).

Procedure:

1. The child adds each row across and each column down.
2. He then adds his sums down and across.
3. The final answer is the same in both directions. This activity is self-checking.

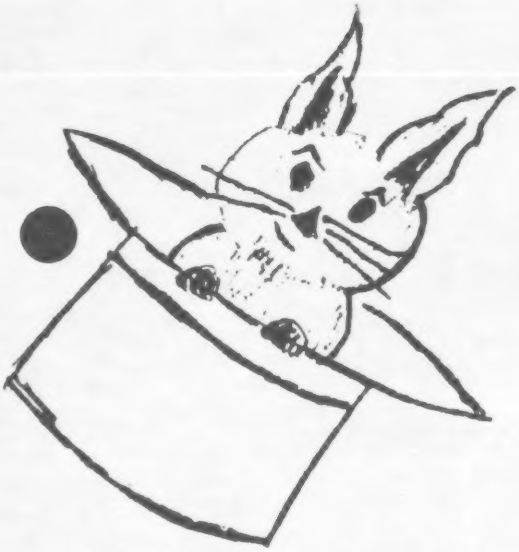
Magic Squares

+

12	3	
4	4	

+

13	3	
4	5	



+

12	7	
6	2	

+

12	4	
5	1	

+

36	32	
10	7	

"87"

Objectives: To provide practice for addition of two place numbers with exchange.

To provide practice for addition of two place numbers with zeros.

To provide practice for mental computation.

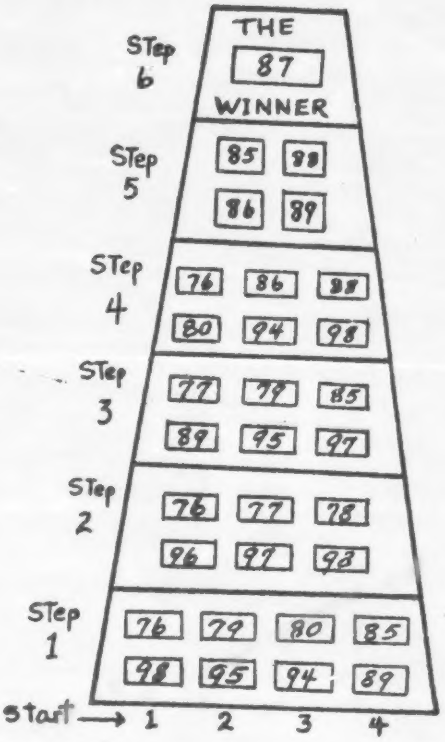
Activity: for small group.

Materials:

Game board made on (9" x 14") oak tag
2 numeral cubes (1st numbered: 28, 29, 30, 37, 38, 39) (2nd numbered: 48, 49, 50, 57, 58, 59)
tokens - a different one for each child
paper for recording for each child

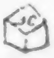
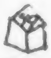
Procedure:

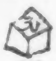
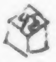
1. The children place their tokens on "Start" on the game board. Each child, in turn, rolls the cubes and all the children add the two numbers he rolled. (These may be added mentally or with paper and pencil.)


THE
87
WINNER
STep 6
STep 5
85
88
86
89
STep 4
76
86
88
80
94
98
STep 3
77
79
85
89
95
97
STep 2
76
77
78
96
97
98
STep 1
76
79
80
85
98
95
94
89
start
1
2
3
4

2. If the player's sum is shown in Step 1, he may move his token to that square on the playing board. If the sum is not shown in Step 1, the child is not able to move on that turn.

Examples:

a. Jane rolls  and . She add and gets a sum of 79. 79 is in Step 1, so Jane moves her marker to cover 79.

b. Jack rolls  and . He adds and gets a sum of 86. 86 is not in Step 1, so Jack cannot move this turn.

3. The children try to move to the next highest Step with each turn. The winner is the first child to get to "87" (Step 6).

Extensions:

1. As a variation, the last player to reach "87" (Step 6) wins.

2. Using the same format, different game boards and sets of cubes may be made to practice such skills as: subtraction with exchange (finding the difference), or multiplication of a two digit number by a one digit number.

WIPE-OUT

Objective: To provide practice in addition of two digit numbers with regrouping.

Activity: for any number.

Materials:

Ditto sheet (see next page)
chalkboard
chalk

Procedure:

1. Place sums of all problems listed on student's dittos on chalkboard.

   Example:

   50
   40 92 51 91
   104 84 64 32
   52 62 41 31
   86 54
   103 105 55 85

2. Students to find sums on ditto sheets. As they find the sums, they are to come to the board and erase answers. This is continued until all sums have been erased.

Extension:

1. Keep creating higher level problems.
2. Use with varied operations.

43 + 7	37 + 14	37 + 49	26 + 14	47 + 15
49 + 35	12 + 79	39 + 15	48 + 57	13 + 19
73 + 19	55 + 49	38 + 26	49 + 15	66 + 37
12 + 19	49 + 36	38 + 14	38 + 17	23 + 18

LET'S GO BOWLING

Objective: To provide practice in column addition with regrouping.

Activity: for two to four players.

Materials:

ten "pins" made from oatmeal or salt boxes, numbered 23, 37, 64, 29, 45, 58, 76, 82, 99, 16, etc.
two balls

Procedure:

1. Arrange the cylinders as in bowling.
2. The players take turns rolling the balls.
3. The score is the sum of the numbers on the cylinders that were knocked over.
4. All the players add each player's score. The player with the highest score is the winner.
5. Each player must compute all scores, not just his own.

A

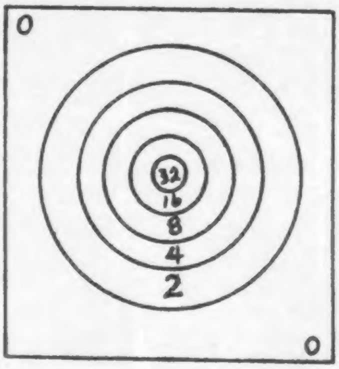
FLIP THE CHIP

Objective: To provide practice for ragged column addition of one, two and three digit numbers.

Activity: for one child or a small group

Materials:

target board - made on (14" x 14") oak tag. The plain side of a plastic tablecloth may also be used.
chips - one for each child
grid paper for each child for recording



Procedure:

1. The target board is placed on the floor or table. From an agreed position each child takes a turn "flipping" his chip on to the board and recording the numeral on which it lands (or comes closest to).

2. All the children record each child's "flip" - not only their own. After 4 turns (arbitrary) the scores are added.

Mary			Jane			Frank			Dick		
	0			4			8			4	
	4		1	6			4			0	
1	6		1	6		1	6			0	
	2			0		3	2		1	6	
2	2		3	6		6	0		2	0	

76

3. After comparing their totals the children determine the winner of that round. A new round may then begin. The "Flip-Chip Champ" is the child with the greatest grand total after several rounds have been played.

Extension:

1. The numbers on the target board may be changed to meet specific needs of the groups.

CHANGE THE RULE

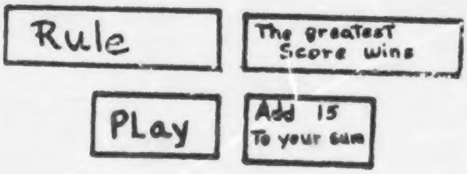
Objectives: To provide practice and review of addition and/or subtraction skills.

To provide experiences which involve reading and and interpreting mathematical terms such as least, sum, difference, product, etc.

Activity: for a small group

Materials:

2 numeral cubes numbered 0-5 and 4-9
set of 8 (2" x 4") oak tag Rule Cards
set of 16 (3" x 5") oak tag Play Cards
Recording sheet for each child



NOTE I: To avoid confusion these two sets of cards should be different sizes and clearly labeled.

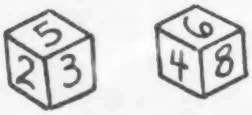
NOTE II: The teacher may use this activity to provide practice for any specific operational skill by preparing the Play Cards for that skill.

Procedure:

1. The two sets of cards are placed face down on the table. A Rule Card is turned over and read by the group.

   Example: "The greatest score wins"

2. Once the rule has been established the game begins. THIS RULE REMAINS UNTIL EACH OF THE PLAYERS HAVE COMPLETED 3 TURNS. The first child to go rolls the cubes. He records the digits he rolled and the sum of his roll on his recording sheet.



	Roll	Sum	Play	Score	Work
A.	5,6	11			
B.					
C.					
				______Total	

3. The child then turns over a PLAY CARD, which directs him to perform an operation such as:

   "Add 15 to your sum"

   He does this and records his score as shown below:

	Roll	Sum	Play	Score	Work
A.	5,6	11	+15	26	11 +15 26
B.					
C.					
				______Total	

4. The next child to go, follows the same steps: rolls the cubes; finds the sum of the digits; turns over a PLAY CARD and follows its directions. After each player has had 3 turns the children total their scores. The child whose score best fits the "Rule" wins the game.

5. A new game begins with a new RULE CARD turned over.

6. Some suggested RULE CARDS:

   a. Greatest score wins
   b. Least score wins
   c. Score closest to 50 wins
   d. Score with the highest digit in units place wins
   e. The greatest even numbered score wins
   f. The greatest odd numbered score wins
   g. Score closest to 100 wins
   h. The score with a zero in one of the places wins

7. Suggested "PLAY" Cards:

For providing practice adding a whole decade number to a one or two digit number:

a. Add 10 to your sum
b. Add 60 to your sum
c. Add 100 to your sum
d. Add 110 to your sum
e. Add 20 to your sum

For providing practice adding two digit numbers with exchanges:

a. Add 27 to your sum
b. Double your sum and add 46
c. Double your sum and add 17
d. Add 48 to your sum
e. Add 59 to your sum
f. Triple your sum and add 15

To provide practice for finding the difference between two two digit numbers involving exchange:

a. Find the difference between your sum and 63
b. Subtract your sum from 49
c. Find the difference between 81 and 69 and add this to your sum
d. Subtract your sum from 81
e. Find the difference between your sum and 92

CHANGE THE RULE

NAME____________________________

Roll	Sum	Play	Score	Work
A.______				
B.______				
C.______				

________Total

Roll	Sum	Play	Score	Work
A.______				
B.______				
C.______				

________Total

Roll	Sum	Play	Score	Work
A.______				
B.______				
C.______				

________Total

A

ADDITION WITH REGROUPING RIDDLE

Objective: To provide practice in addition with regrouping.

Activity: for any number

Materials:

Dittos (see next page)

Procedure:

1. The student solves the addition problems and solves the riddle.

What does a worm do in a cornfield?

56 57 75 82 102 112

50 83 80 90 74

117 73 91 100 81 51

92 111 84 70 76 71

61 86 95 77 135

			I 37 +19	G 59 +16	S 83 +29	E 65 +37	
R 46 +45	N 71 +19	T 38 +46	O 57 +35	A 44 +29	D 26 +25	H 39 +37	A 82 +18
U 77 +34	O 63 +17	I 31 +19	O 75 + 7	N 57 +26	T 29 +28	H 66 +29	E 37 +37
E 68 +29	T 47 +39	E 59 +18	T 43 +27	N 69 +12	O 35 +26	E 54 +17	R 78 +57

SUBTRACTION FACTS

(CODED S)

SUBTRACTION FACTS

Objective: To teach spontaneous recall of subtraction facts to ten.

Activity: For small group or entire class

Materials:

One suit of cards from two through ten

Procedure:

1. Present one card at a time to the children. Ask them to look at hearts (spades, diamonds, or clubs) and tell how many would be left if a certain number of symbols were taken away.
2. For initial instruction, the symbols to be "taken away" may be actually covered. Later, have the children do the "covering" mentally.
3. Eventually, the children should become familiar with the configuration of each card and be able to use a mental picture to perform the operation.

Extensions:

Addition facts.

BIG LEAGUE BASEBALL

Objective: To provide for rapid recognition of subtraction facts.

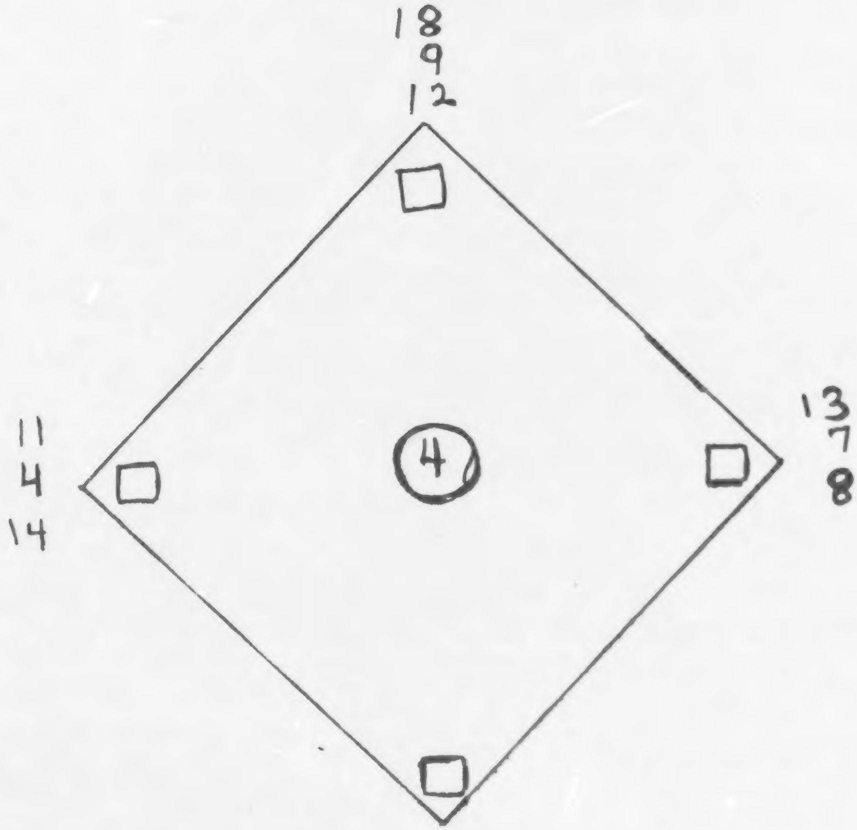
Activity: Small group or whole class

Materials:

Chalkboard
Chalk

Procedure:

1. Draw a baseball diamond on the chalkboard and place three numerals 1 through 18 at first, second, and third bases as shown.



2. In the pitcher's box place the number to be subtracted.

3. Divide the class into two teams. A captain chooses a member of his team to subtract the number in the pitcher's box.

4. The first player uses the top number at each box. If he gives three successive answers, he scores a run for his team and his captain chooses another player to try, using the middle number at each base.

5. Whenever a child misses, his team is "out" and the other team gets to play.

Extension:

Use addition, multiplication and division combinations.

RACE TO 100

Objectives: To provide practice for learning the basic subtraction and or addition facts.

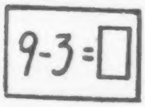
To reinforce the sequence of counting numbers to 100.

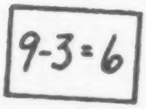
To provide practice in mental computation.

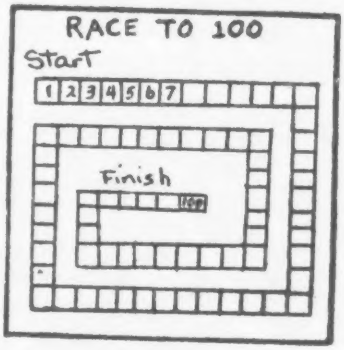
Activity: for a small group

Materials:

game board made on (9" x 14") oak tag numbered 1-100
set of about 30 (2" x 3") oak tag cards each having a subtraction or addition open sentence on one side and the completed sentence on the other side (flashcards may be used)
tokens - a different one for each child
paper for recording for each child







Procedure:

1. Cards are shuffled and placed on the table with the open sentence side facing up. Each child, in turn, takes the top card from the pile, completes the sentence and then turns the card over to check his answer.

2. If the answer is correct the child may move his marker that number of spaces.

   Example: Gloria's card read 9 - 3 = ______. Gloria answered 6, checked it and moved her marker six spaces on the game board.

3. If a child gives an incorrect answer he may not move and must copy the fact on his paper to be studied later. The used cards are put aside and mixed to be used again.

4. The winner is the first child to reach 100.

Extensions:

1. Use addition, multiplication, or division cards.
2. (See page).

2. Use cards with more complex problems to provide practice in mental computation.

Example: 26 + 34 = ______. In cases such as this the rules for moving along the board should be changed--roll a numeral cube and move that many spaces or move as many spaces as there are tens in your answer, etc.

S

ONE WAY

Objective: To provide practice for addition and subtraction of one and two place numbers with exchange.

Activity: for one child

Materials:

puzzle sheet for each child (see Example A)
paper for recording for each child

NOTE: Although this activity is for one child it is one of many activities that might be introduced to the whole class and then used by individual children to practice a specific skill.

Procedure:

1. To work the puzzle the players must go from START to FINISH by following a path of number sentences using the rules of the puzzle in the order given.

   Example A: Rules +, -
   For this puzzle the child would first add two numbers to get a sum then subtract two numbers to get a remainder, and continue adding then subtracting.

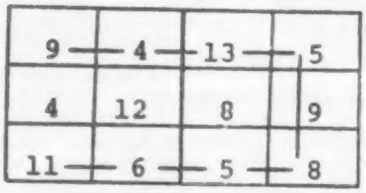
2. Examine the puzzle with the children and ask them to find a hidden addition sentence beginning with 9 and going in either horizontal or vertical direction (9 + 4 = 13).

3. The number sentences may be formed only in vertical and horizontal directions.

4. Now have the children look for a hidden subtraction sentence beginning with 13 (13 - 8 = 5).

5. The sum or difference of one number sentence becomes the first number of the next sentence. Draw a line to trace the path.

   Example:

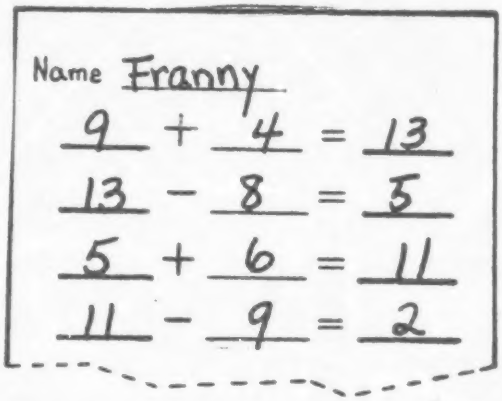


9	4	13	5
4	12	8	9
11	6	5	8

9 + 4 = 13
13 - 8 = 5
5 + 6 = 11

6. Review the procudere with the children and have them complete the puzzle on their own; writing each number sentence as they proceed. Recording in this way provides additional practice for the student; helps his keep track of his operations (+, -, +, -, +, etc.) and also enables the teacher to quickly examine his work.

Example:



Name Franny

9 + 4 = 13
13 - 8 = 5
5 + 6 = 11
11 - 9 = 2

HOW TO MAKE "ONE WAY" PUZZLES

(see Example B)

1. Make a grid or use 1 inch graph paper.

2. Decide upon rules. To avoid working with large numbers try using the last number of one sentence as the first number in the next sentence.

Example: Rule: +, -

9 + 4 = 13
13 - 8 = 5
5 + 6 = 11
11 - 9 = 2, etc.

4. Now on the grid paper, make an interesting path with your number sentences. Copy and save this to use for an answer sheet.

5. Fill in the remaining squares with other numbers. Be careful, however, to select numbers that will not make new paths and confuse the children.

Extensions:

1. Puzzles such as these may be designed and used to practice a variety of arithmetic skills with whole numbers and fractions at different levels of sophistication.

2. Rules may be varied to include several operations in one puzzle.

Example: Rule: x, ÷, +
Rule: +, -, x

3. Have the children design their own and exchange with one another.

4. For more able students construct some puzzles that do have "dead-ends" and alternate paths.

Example A: ONE WAY

NAME________________________

RULE (+, -)

START 9	4	13	5	7	4	7	2
4	12	8	9	6	8	2	7
11	6	5	8	15	4	11	3
9	3	4	5	8	6	6	14
2	8	10	3	7	8	3	5
6	18	6	13	5	18	9	9
7	12	15	12	25	6	14	15
17	14	16	21	7	19	8	27 FINISH

Example B:

Rule ÷, X

START

24	3	9	4	16	9	11	13
4	8	16	4	16	10	19	21
14	4	32	8	1	27	32	20
4	3	3	9	9	36	18	24
13	16	12	13	15	19	11	19
6	14	2	16	4	17	8	15
2	19	8	10	4	14	2	8
4	8	1	16	3	9	3	6
19	13	9	2	12	6	2	3
17	12	24	14	11	3	10	2

FINISH

24 ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = ___
___ x ___ = ___
___ ÷ ___ = 2

SUBTRACTION FACTS RIDDLE

Objective: To provide practice with the basic subtraction facts.

Activity: for any number

Materials:

dittos

Procedure:

1. The students solve the subtraction problems and then answer the riddle.

What kind of dog has no tail?

___ (6)   ___ (7) ___ (9) ___ (5)   ___ (3) ___ (4) ___ (8)

O
$$\begin{array}{r} 11 \\ -\ 2 \\ \hline \end{array}$$

G
$$\begin{array}{r} 17 \\ -\ 9 \\ \hline \end{array}$$

H
$$\begin{array}{r} 15 \\ -\ 8 \\ \hline \end{array}$$

T
$$\begin{array}{r} 12 \\ -\ 7 \\ \hline \end{array}$$

D
$$\begin{array}{r} 10 \\ -\ 7 \\ \hline \end{array}$$

A
$$\begin{array}{r} 14 \\ -\ 8 \\ \hline \end{array}$$

O
$$\begin{array}{r} 13 \\ -\ 9 \\ \hline \end{array}$$

What goes up when the rain comes down?

B
$$\begin{array}{r} 18 \\ -\ 9 \\ \hline \end{array}$$

U
$$\begin{array}{r} 9 \\ -\ 6 \\ \hline \end{array}$$

L
$$\begin{array}{r} 14 \\ -\ 7 \\ \hline \end{array}$$

N
$$\begin{array}{r} 13 \\ -\ 8 \\ \hline \end{array}$$

E
$$\begin{array}{r} 15 \\ -\ 7 \\ \hline \end{array}$$

A
$$\begin{array}{r} 12 \\ -\ 6 \\ \hline \end{array}$$

A
$$\begin{array}{r} 10 \\ -\ 9 \\ \hline \end{array}$$

M
$$\begin{array}{r} 7 \\ -\ 3 \\ \hline \end{array}$$

R
$$\begin{array}{r} 10 \\ -\ 0 \\ \hline \end{array}$$

L
$$\begin{array}{r} 8 \\ -\ 6 \\ \hline \end{array}$$

___	___
6	5

___	___	___	___	___	___	___	___
3	4	9	10	8	2	7	1

STRANGE SUBTRACTION

Objective: To provide practice in subtraction with regrouping.

Activity: for entire class.

Materials:

None

Procedure:

1. Have each student choose a three digit numeral such as 427. The digits are to be reversed (724).
2. The difference of the two numbers is then obtained (297), and the process is repeated.
3. Thus 297 gives 792 when reversed and the new difference is 495.
4. Continuing the process, the difference of 594 and 495 is 99.
5. If the process is continued, the difference will eventually be "0". Regardless of the numbers used, the differences will eventually be 9; 99; 999, etc., all of which will yield a difference of "0."

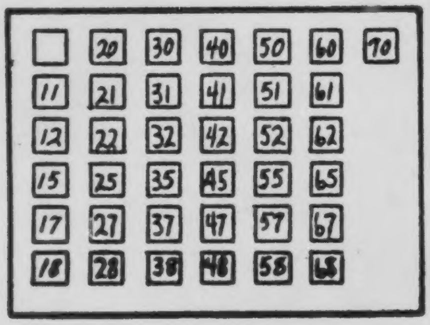
DOUBLE ZERO

Objectives: To provide practice for subtraction with zeros in the units and tens places of the minuend.

Activity: for a small group

Materials:

2 numeral cubes of different colors - one representing tens, numbered: 3, 4, 5, 6, 7, 8. The other representing units, numbered 0, 2, 3, 5, 8, 9.
answer board made on (9" x 14") oak tag
tokens - about 15 of a different color for each child
paper for recording for each child



	20	30	40	50	60	70
11	21	31	41	51	61	
12	22	32	42	52	62	
15	25	35	45	55	65	
17	27	37	47	57	67	
18	28	38	48	58	68	

NOTE: This activity is self-checking. The child should be aware that if this number is not on the answer board then he has subtracted incorrectly.

Procedure:

1. Each child, in turn, rolls the cubes, represents a two place number and subtracts it from 100. The child then covers the number on the answer board which corresponds to his remainder.

2. If a number is corered on the answer board, it cannot be used again. A child whose answer has already been covered on the board is not able to move for that turn. (Some children might enjoy a bumping-off rule).

3. The winner is the child with the most tokens on the answer board when all the numbers are covered or when time is up.

WHAT'S THE DIFFERENCE

Objectives: To provide practice for addition and subtraction of two and three digit numbers with exchange.

To provide practice for ragged column addition.

To reinforce the place value of two digit numbers.

Activity: for two children.

Materials:

2 numeral cubes for each child: one numbered: 0, 2, 4, 5, 7, 8;
the other: 4, 5, 6, 7, 8, 9
recording sheet for each child

Procedure:

1. The children each roll their 2 cubes and form the greatest numeral possible.

   Example: Gloria rolls a and an ; she shows 84.

   Doreen rolls a and a and shows 75.

   The child with the greatest number, adds both numbers and the sum is his score for the round.

   Gloria's score is $\begin{array}{r} 84 \\ +75 \\ \hline 159 \end{array}$

   The other child finds the difference between the two numbers and this becomes his score for the round.

   Doreen's score is $\begin{array}{r} 84 \\ -75 \\ \hline 9 \end{array}$

2. The children record all their computations and scores on the recording sheets. After several rounds, each child adds all his scores. The one with the greater total is the winner.

WHAT'S THE DIFFERENCE?

NAME____________________________

Round	Yours	Mine	Work	Score

Total____________

S

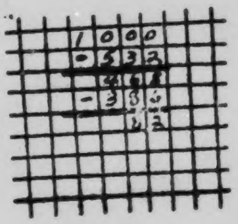
SUBTRACT AWAY TO ZERO

Objectives: To provide practice in subtraction of two, three, and four digit numbers with exchange.

To reinforce the place value of two and three digit numerals.

To provide the opportunity for developing problem solving strategies.

Activity: for two or three cnildren



Materials:

3 numeral cubes numbered: 0-5,2-7, 4-9
grid paper for recroding for each child
hand calculators (optional)

Procedure:

1. Each child begins the game with a score of 1,000 points which he records on his grid paper. The first one to "subtract away" all these points wins the game. The children take turns rolling the numeral cube (s), arranging them to form numerals, and then subtracting that many points from their scores. The activity continues until someone reaches zero exactly.

Example: Becky started with 1,000

1st roll 3, 5, 2............- 532 She arranged them to form the numeral with the greatest value.
468

2nd roll 8, 3, 6............- 386 These digits had to be arranged to make a numeral less than 468.
82

3rd roll 6, 4...............- 64 Becky decided to use only two cubes.
18

4th roll 2, 3...............- 0 Becky loses her turn. She is not able to form a numeral less than 18 with the digits 2 and 3.
18

5th roll 7..................- 7 Becky rolled one cube.
11

6th roll 8..................- 8
3

WOW!! Becky's close to winning the game!

2. Rules to remember:

   a. You may use one, two or three cubes for any turn.

   b. If the digits you rolled cannot be arranged to form a number less than the points you have left, you lose your turn.

   c. The first child to reach zero exactly wins.

   These rules provide the children with opportunities to consider several possible alternatives and approaches and decide upon the one that would "probably" be the most advantageous.

Extensions:

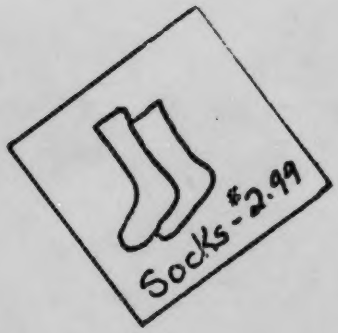
1. The game may be played starting with 100 or 10,000 points depending upon the children's readiness.

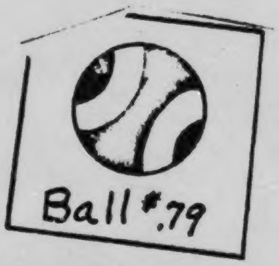
2. Instead of points, money may be used.

   Example: "You have $10,000.00 to spend." The children are given catalogs, newspapers, etc. from which they would "purchase" items until they had no money left. Cards could also be made by the teacher having a picture of an item and its cost. In this case, the children would take turns picking cards and spending their money.

   $100.00
   - 2.99 Socks for Dad

3. The reverse of this activity may be used to practice column addition. Instead of taking points or money away the children would keep adding on until they reached 1,000.





S

SUBTRACTION RIDDLE

Objective: To provide students with practice subtracting numbers with at least two zeros as place holders.

Activity: any number of students

Materials:

Ditto sheets or overhead.

Procedure:

1. Students will solve subtraction problems at bottom of ditto.
2. Students will place correct letter to each answer above.
3. Students will then solve riddle (The Mississippi River)

Extension:

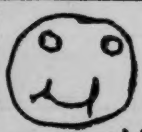
1. Change problems to any type that you are working with.

Riddle: What has five eyes
and sleeps in a water bed?

721 179 423

85 178 84 4 98 246 1 428 169 97 8

101 79 295 11 432

H 307 −128	R 600 −168	E 1,000 −577	E 280 −269	V 500 −205
I 707 −628	R 500 −399	S 1,000 −999	I 800 −372	S 300 −54
M 403 −218	S 650 −566	I 400 −392	P 103 −6	T 800 −79
I 270 −172	S 60 −56	I 700 −522	P 306 −137	 SMILE

MULTIPLICATION FACTS

(CODED M)

BEAT IT

Objective: To provide practice with the basic multiplication facts.

Activity: for small group or entire class

Materials:

None

Procedure:

1. Choose one child to be "it."
2. The child that is "it" calls on someone else to call out two one-digit numbers.
3. The child that is "it" must give the product of the two numbers before the child who called out the numbers counts to five.
4. If the person who is "it" answers correctly, he/she gets 1 point, and then selects another caller. If he/she is not correct, the caller becomes "it."
5. The student with the greatest number of points wins.

Pinpointing Products

Objective: To provide practice using the basic multiplication facts.

Activity: for any number of children in teams of two.

Materials: teacher made gameboard or ditto of gameboard
markers of two different types of color.

Procedure:

1. Each player, in turn, selects any two numbers from the nine numbers listed at the top of the game board.
2. He multiplies these factors and marks the product on the game board with his marker.
3. The winner is the first one to get four markers in a row. (Players should try to block.)

Buzz

Objective: To provide practice in multipliers of a number.

Activity: small group or the whole class and leader

Materials: None

Procedure:

1. The leader tells what number to say Buzz on.
2. The group sits in a circle. The first child starts counting by 1 and each child in turn continues counting.
3. When a multiple of the leader's number occurs, the child must say Buzz.
4. Each child that doesn't Buzz is out of the game. Any child that says Buzz when it isn't accurate is out of the game.
5. The child to stay longest is the winner.

Around the Country

Objective: To provide practice for learning the multiplication facts (1-11)

Activity: for small group.

Materials:

game board made on (15" x 18") oak tag (See next page)
two numeral cubes each numbered 1 - 6
a token for each child
recording sheet for each child
a multiplication facts checkboard (optional)

Procedure:

1. The children place their tokens at START on the game board. Each child, in turn, rolls the cubes and multiplies the numbers that turn up. This computation is then recorded. If this product is shown in the first circle (New York), the child may move his token there; however, if it is not shown the child must remain at START.

   Example: Arlene rolls 6 and 5. She says and records, "6 X 5 + 30". 30 is in the first circle (New York) so Arlene moves her token to cover 30.

   Brad rolls a 6 and 4. He multiplies and gets a product of 24. 24 is not in the first circle so Brad cannot move on this turn.

2. The children must visit each state along the way.

3. No state (circle) may be skipped.

4. The winner is the first child to get through all nine circles to FINISH.

Extensions:

1. Use 2 cubes each numbered 3 - 8 for AROUND THE WORLD. (See next page.)

2. Use 2 cubes each numbered 6 - 11 for AROUND THE UNIVERSE. (See page 36.)

3. By changing the numerals on the game board and on the cubes this activity may also be used to practice various addition and subtraction skills.

X ____________________

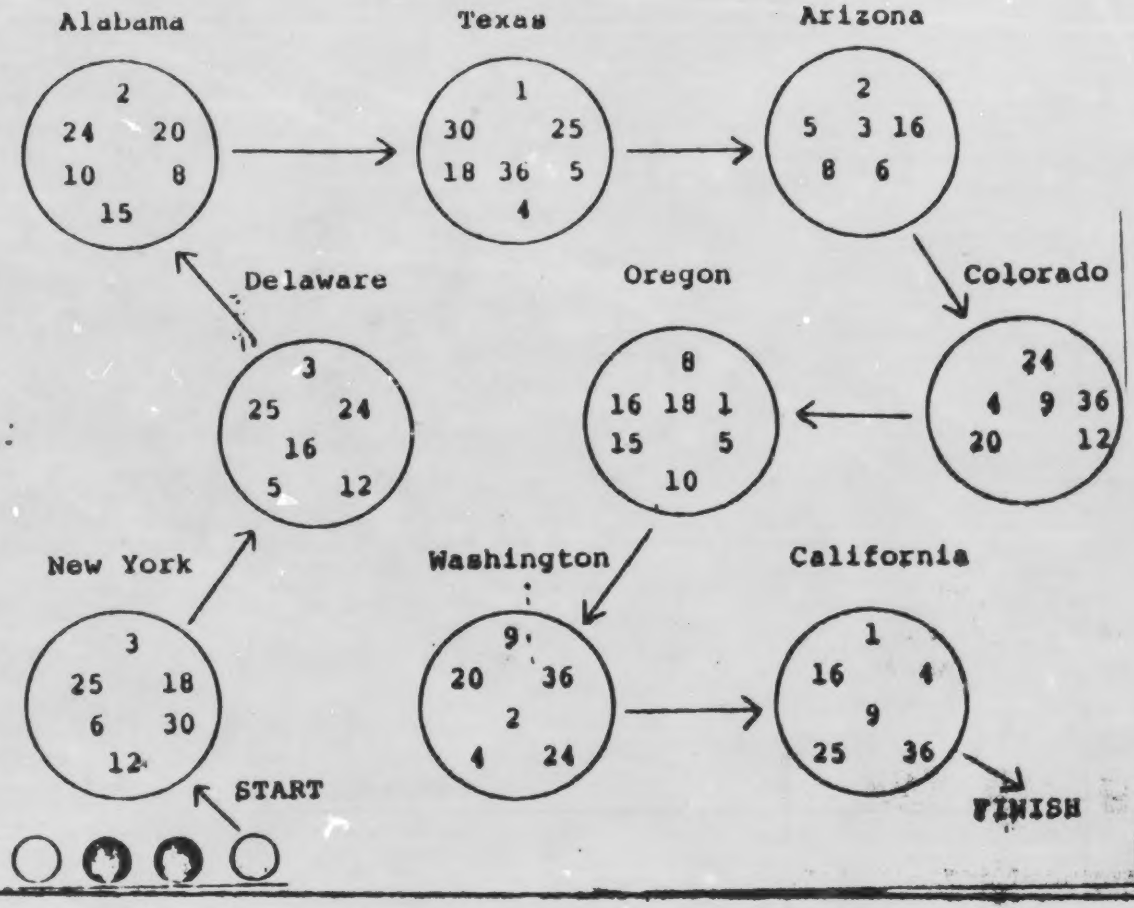
O ____________________

1 2 3
4 5 6
7 8 9

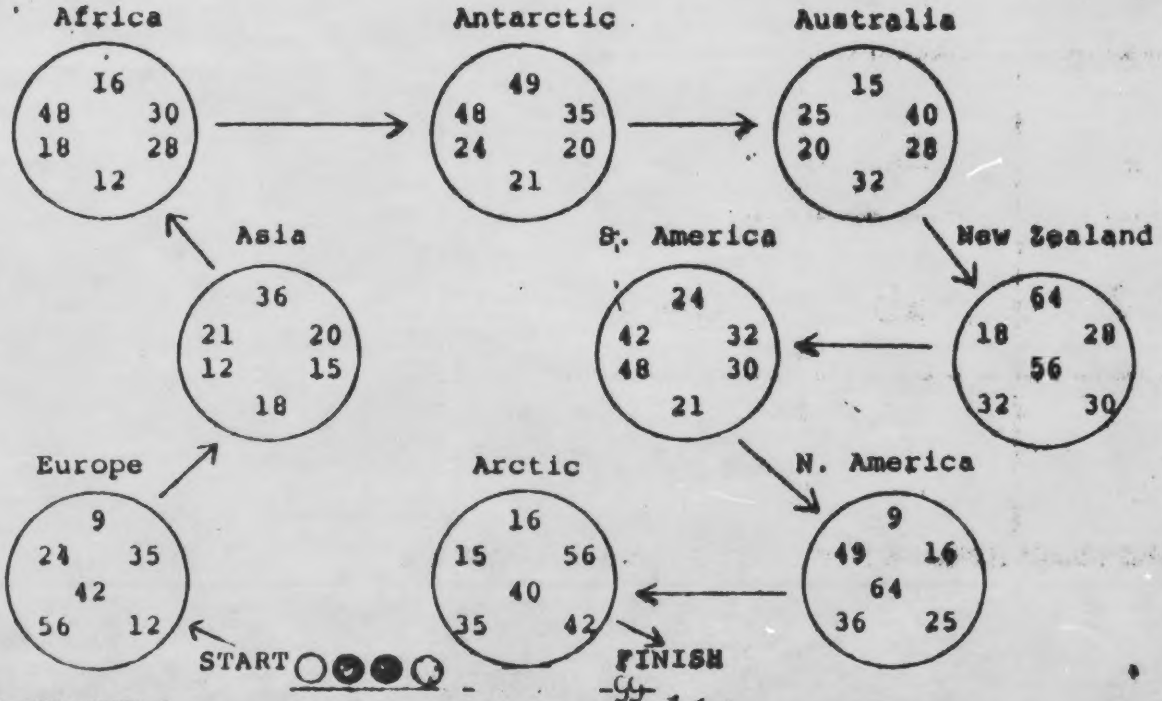
GAME BOARD

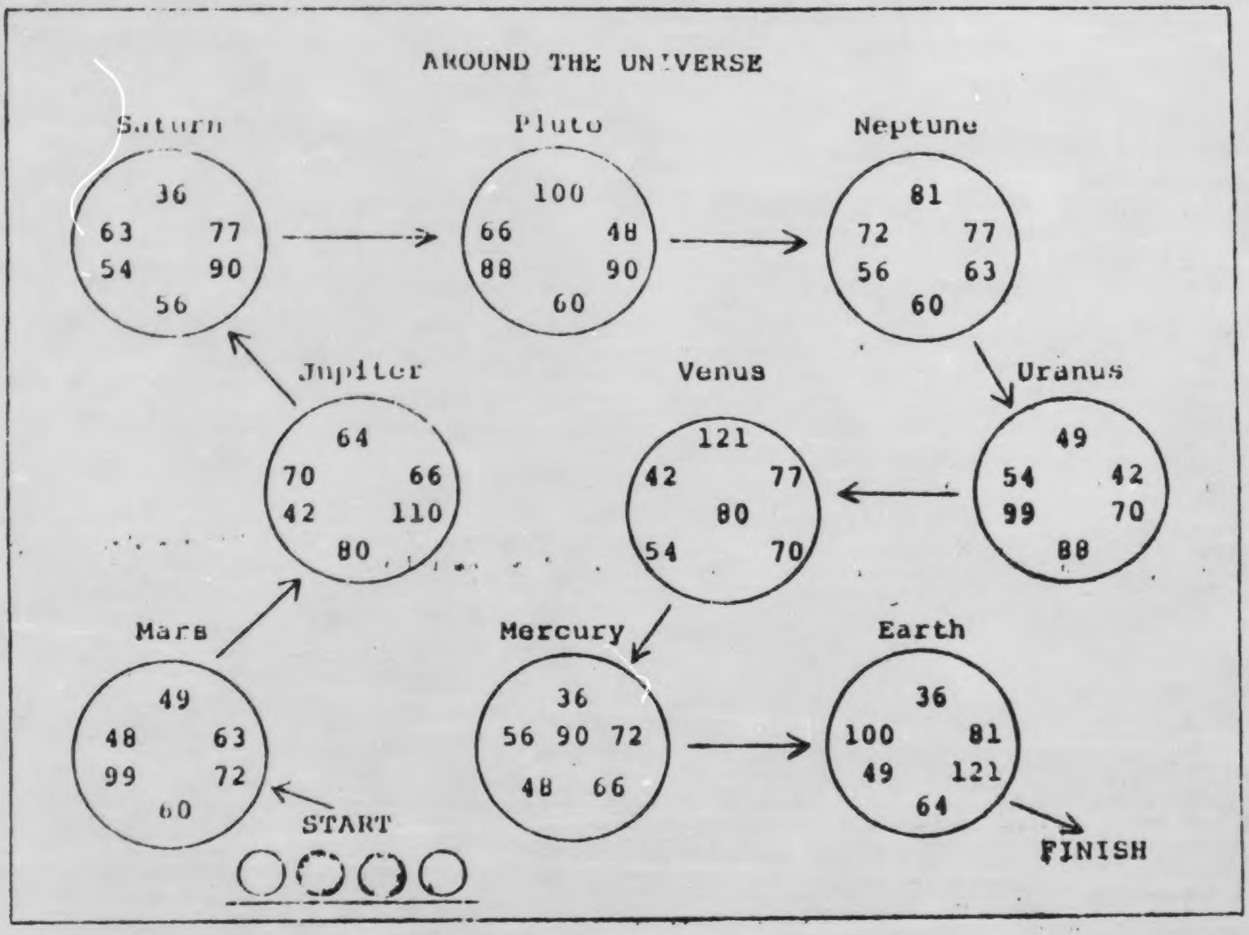
9	24	6	10	16	5
12	45	32	54	30	14
2	28	40	72	48	18
7	36	63	42	56	3
21	4	15	27	8	35

AROUND THE COUNTRY


Alabama
2 24 20 10 8 15
Texas
1 30 25 18 36 5 4
Arizona
2 5 3 16 8 6
Colorado
24 4 9 36 20 12
Oregon
8 16 18 1 15 5 10
Delaware
3 25 24 16 5 12
New York
3 25 18 6 30 12
Washington
9 20 36 2 4 24
California
1 16 4 9 25 36
START
FINISH

AROUND THE WORLD


Africa
16 48 30 18 28 12
Antarctic
49 48 35 24 20 21
Australia
15 25 40 20 28 32
New Zealand
64 18 28 56 32 30
S. America
24 42 32 48 30 21
Asia
36 21 20 12 15 18
Europe
9 24 35 42 56 12
Arctic
16 15 56 40 35 42
N. America
9 49 16 64 36 25
START
FINISH



AROUND THE UNIVERSE

Saturn
36
63 77
54 90
56
Pluto
100
66 48
88 90
60
Neptune
81
72 77
56 63
60
Jupiter
64
70 66
42 110
80
Venus
121
42 77
80
54 70
Uranus
49
54 42
99 70
88
Mars
49
48 63
99 72
60
Mercury
36
56 90 72
48 66
Earth
36
100 81
49 121
64
START
FINISH

AROUND THE ______

NAME______________________________

______ x ______ = ______
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______ x ______ = ______

Factory

Objectives: To provide practice for recognizing the factor-product relationship.

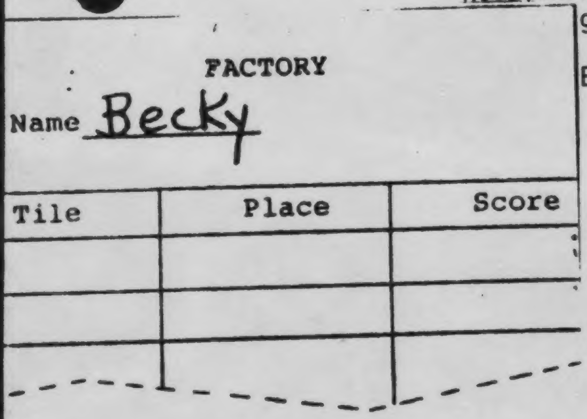
To provide practice for learning the basic multiplication facts.

Activity: for a small group.

Materials:

game board made on (10" x 10") oak tag
sets of 81 cardboard tiles to fit the squares on the game board (see next page)
recording sheet for each child

9							Bonus		
8									
7					Bonus				
6			Bonus					Bonus	
5									
4				Bonus					
3									Bonus
2		Bonus	6				14		
1						Bonus			
	1	2	3	4	5	6	7	8	9



FACTORY

Name Becky

Tile	Place	Score

NOTE: Have the children discover how the game board is used.

Example: Point to the box at the intersection of * (7, 2) "The name of this box is 14".

Now point to the * (3, 2) box "The name of this box is 6".

Pointing to another box, ask the children to name it.

Provide time and encouragement for the children to make and discuss their ideas.

* The first numeral in the ordered pair names a number along the BOTTOM of the game board. The second numeral names a number along the SIDE of the game board.

Preparing the tiles -

Make 1 tile for each of these numerals:

1, 25, 49, 64, 81.

Make 2 tiles for each of these numerals:

2, 3, 5, 7, 10, 14, 15, 20, 21, 27, 28, 30, 32, 35, 40, 42, 45, 48, 54, 56, 63, 72.

Make 3 tiles for each of these numerals:

4, 9, 16, 36.

Make 4 tiles for each of these numerals:

6, 8, 12, 18, 24.

Procedure:

1. All the tiles are mixed and placed face down on the table.

2. Each child takes 3 tiles and in turn, tries to place one of them in an appropriate square on the game board. If he uses a tile he may take a new one to replace it.

   Example: Margaret had 49 16 2

   She may place the 49 at the intersection of 7, 7 (1 possibility) or .....

   the 16 at 4, 4; 8, 2, or 2, 8 (3 possibilities) or .....

   the 2 at 2, 1 or 1, 2 (2 possibilities)

   Margaret decides to use 16. She places it on the game board and records:

3. *One point* is scored for *placing a tile* correctly.

   If a tile is placed in a *Bonus Box* on the board *an additional 3 points* is scored.

   If a tile is incorrectly placed the child loses his turn.

4. The game ends when all the tiles have been used. The player with the greatest score is the winner.

FACTORY

NAME______________________________

Tile	Place	Score	Tile	Place	Score
Total Score		________	Total Score		________

Multiplication Facts Riddle

Objective: To provide practice with the basic multiplication facts.

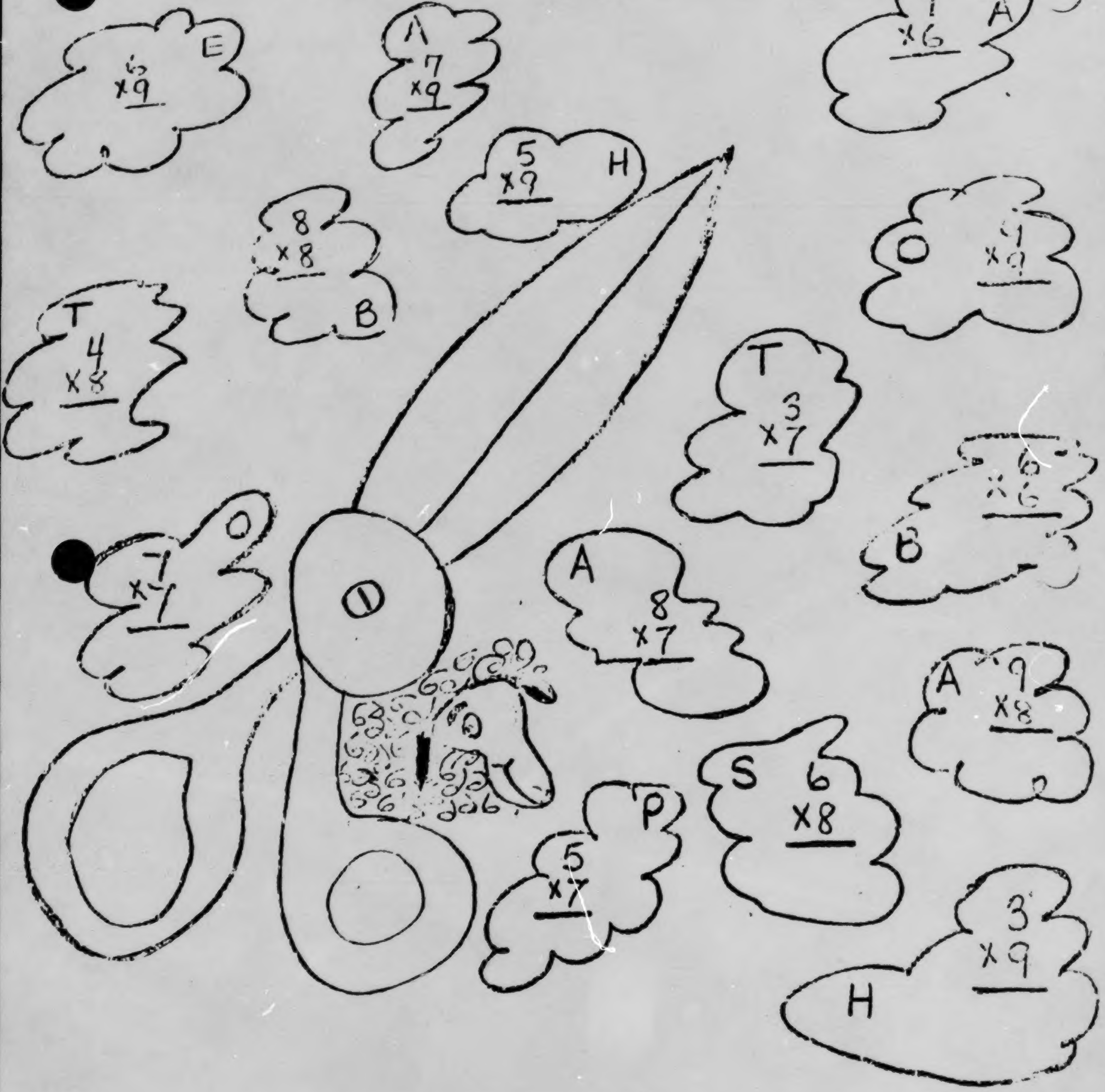
Activity: for any number.

Materials: dittos

Procedure:

The student solves the multiplication problems and answers the riddle.

Where does a lamb go when he needs a haircut?


E 6 x9
A 7 x9
A 7 x6
H 5 x9
B 8 x8
O 9 x9
T 4 x8
T 3 x7
O 7 x7
B 6 x6
A 8 x7
A 9 x8
S 6 x8
P 5 x7
H 3 x9

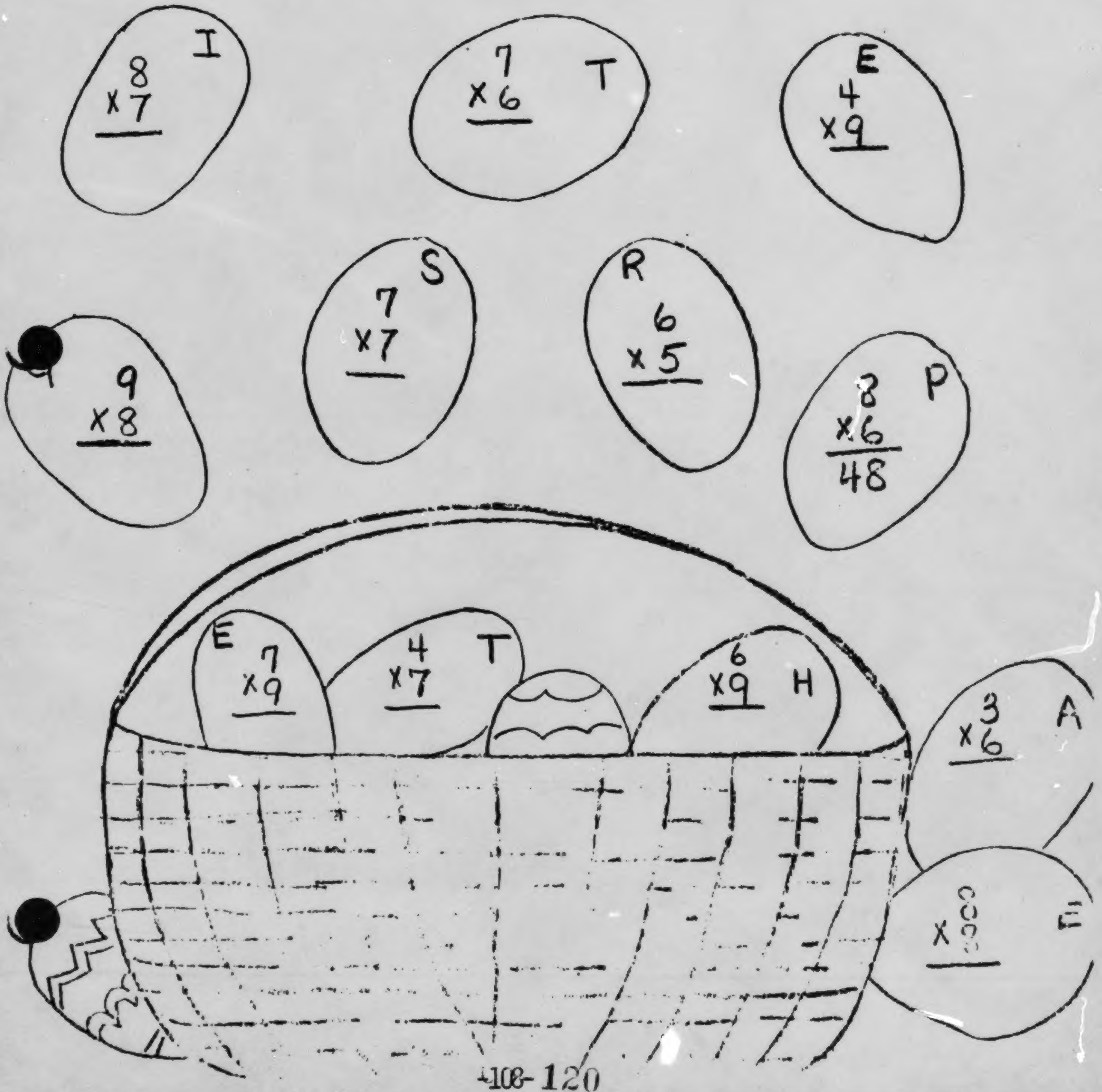
___ ___ ___ ___ ___
21 49 32 27 54

___ ___ ___ - ___ ___ ___ ___ ___ ___ ___
36 63 72 - 64 42 63 48 45 81 35

What wallows in mud and carries a basket full of colored eggs?

___ ___ ___
42 54 63

___ ___ ___ ___ ___ ___   ___ ___ ___
36 18 49 28 64 30   48 56 72



I
8
x7
7
x6
T
E
4
x9
9
x8
S
7
x7
R
6
x 5
8
x6
48
P
E
7
x9
4
x7
T
6
x9
H
3
x6
A
8
x8
E

Cover the Product

Objective: To provide practice with multiplication with and without regrouping.

Activity: for any number of chindren in teams of two.

Materials:

Teacher made game board or ditto of the gameboard.
markers of two different shapes or colors.

Procudure:

1. Each player selects three of the numbers from the top of the game board.
2. He adds two of the numbers and multiplies this sum by the third number. He then marks the answer on the game board.
3. The winner is the first to get four markers in a row.

X ____________

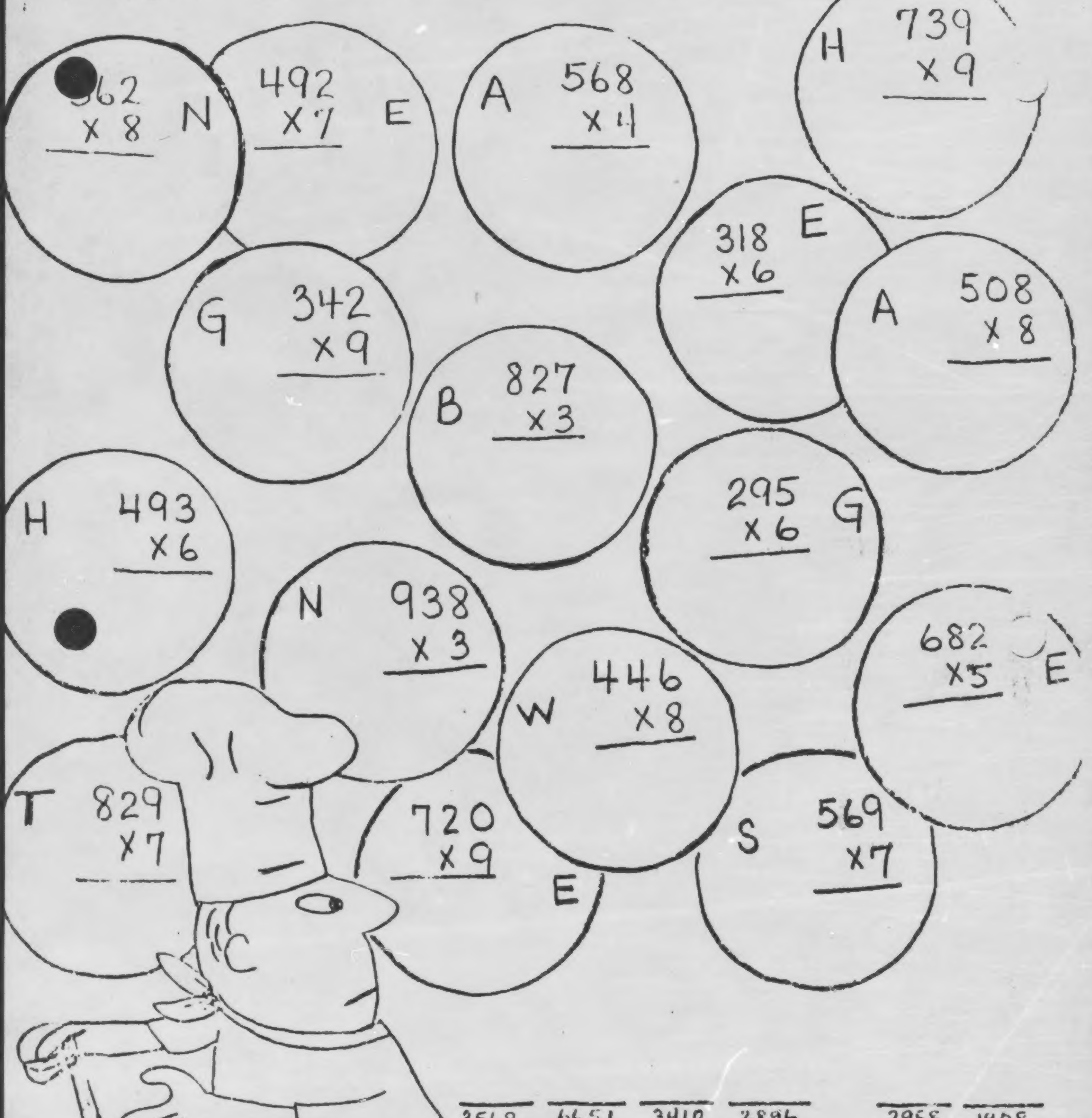
O ____________

1 2 3
4 5 6

GAME BOARD

32	5	24	15	22	14
48	18	40	12	44	28
9	11	42	27	33	10
30	16	50	20	35	21
54	36	8	25	45	7

When is a cook bad?


362 × 8 N
492 × 7 E
A 568 × 4
H 739 × 9
318 × 6 E
G 342 × 9
A 508 × 8
B 827 × 3
H 493 × 6
295 × 6 G
N 938 × 3
682 × 5 E
W 446 × 8
T 829 × 7
720 × 9 E
S 569 × 7

3568 6651 3410 2896 2958 1408

2481 6480 4064 5803 3983 2272 281

3444 1770 3078

Cover The Product

Objective: To provide practice in multiplication with regrouping.

Activity: for small group.

Materials:

three ordinary dice
a score card for each player
markers large enough to cover a numeral
pencil and paper for computing

24	30	48
40	36	16
54	60	18

Procedure:

1. A player's turn consists of one throw of the dice. If his scorecard contains uncovered the product of the three numbers shown on the dice, he covers that numeral with a marker.
2. If the product does not show on his card, he passes the dice to the next player.
3. If a player "scores," he immediately gets another turn. The first player to cover three in a row wins.

Extension:

First to cover all the products on his scorecard wins.

Cover-Up

Objectives: To provide practice for learning the basic multiplication facts.

To provide practice for multiplication of two-digit numbers by one digit numbers.

To reinforce the notions of commutativity and associativity.

Activity: for a small group.

Materials:

gameboard made on (9" x 14") oak tag
3 numeral cubes each numbered 1-6
tokens 15 of one color for each child
recording sheet for each child

1	2	3	4	5	6	8	9
10	12	15	16	18	20	24	25
27	30	32	36	40	45	48	50
54	60	64	72	75	80	90	96
100	108	120	125	144	150	180	216

Procedure:

1. Each child, in turn, rolls the cubes, records the three numerals on his sheet and then multiplies them.

   Example: Steve rolled: 4, 3, 5

   He records - 4 X 3 X 5 = 60

   or 3 X 4 X 5 = 60

   or 4 X 5 X 3 = 60

   and so on.........

2. If the other children agree with his multiplication, Steve may place one of his tokens on the 60 of the game board. If 60 has already been covered, he must pass.

3. The activity continues with the children rolling the cubes, recording, multiplying, and then covering the products on the game board.

4. The game ends when all the numerals on the board are covered or when time is up.

5. The winner is the child displaying the most tokens on the board

Extensions:

1. This acitivty may be used to practice simpler or more complex multiplication by changing the numerals on the cubes and changing the products on the game board.

2. The winner may be the first child to get three markers in a row, column or diagonal.

COVER-UP

NAME____________________

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

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____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

____ x ____ x ____ = ____

Multiplication Riddle

Objective: To provide practice in multiplication with regrouping.

Activity: For any number.

Materials:

dittos

Procedure:

The student solves the multiplication problems and answers the riddle.

What is big and red and eats rocks?

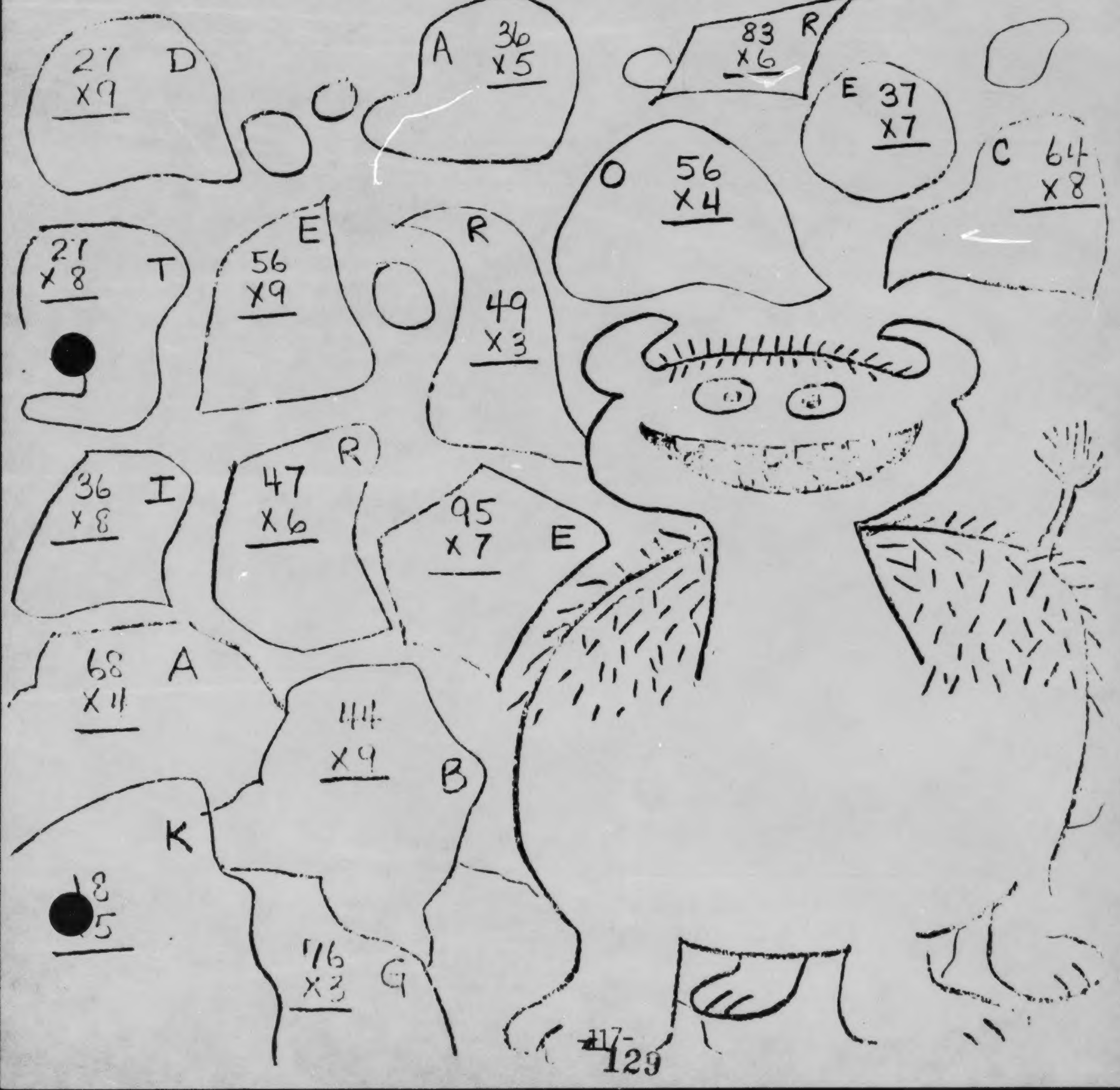
____ 272

____ 396 ____ 288 ____ 228

____ 282 ____ 504 ____ 243

____ 147 ____ 224 ____ 512 ____ 90

____ 259 ____ 180 ____ 216 ____ 665 ____ 498


D 27 x9
A 36 x5
R 83 x6
E 37 x7
O 56 x4
C 64 x8
T 27 x8
E 56 x9
R 49 x3
I 36 x8
R 47 x6
E 95 x7
A 68 x4
B 44 x9
K 18 x5
G 76 x3

DIVISION FACTS

(CODED D)

Ski Down the Mountain

Objective: To provide practice for learning the basic division facts.

Activity: for a small group.

Materials:

game boards made on (9" x 14") oak tag
one for each child
set of 40 (2" x 3") oak tag cards
each with a division open
sentence (4 cards for each of
the missing factors 1-10)

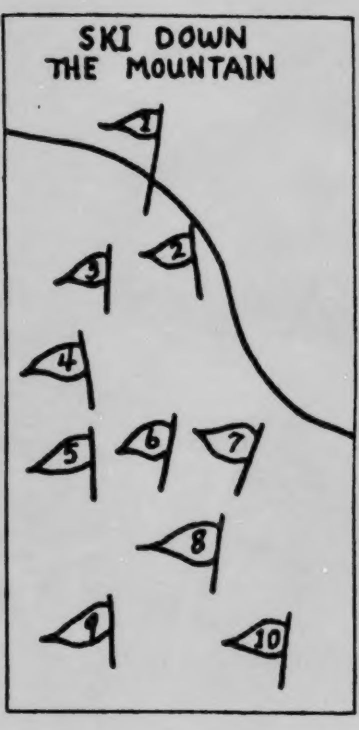
Example: Possible cards for 2:

$6 \div \square = 3$

$12 \div \square = 6$

$\square \div 2 = 1$

$16 \div 8 = \square$



tokens - about 10 of one color
for each child

Example: Joyce, blue; Joan - red;
Carol - green

basic facts checkboard or counting
material (optional)

Procedure:

1. The cards are mixed and placed face down on the table. Each child, in turn, takes a card from the top of the pile and completes the open sentence.
2. If the other children agree that his answer is correct, the child may cover that flag which displays the same number as his answer.

Example: Becky says "$16 \div 4 = 4$"

The children agree, her answer is correct. She may now cover the "4" flag on her game board unless she has already covered it.

3. The first child to cover all his flags, "ski down the mountain," is the winner.

4. To validate their answers counting materials or a basic facts checkboard may be used by the children.

Extension:

1. This type of activity can be used to practice a variety of operational skills:

   Example: The flags may display products for practicing a particular multiplication skill: basic, facts; multiplying by 10, multiplication of two 2 place numbers, etc.

Computor Breakdown

Objective: To provide practice in the use of division facts.

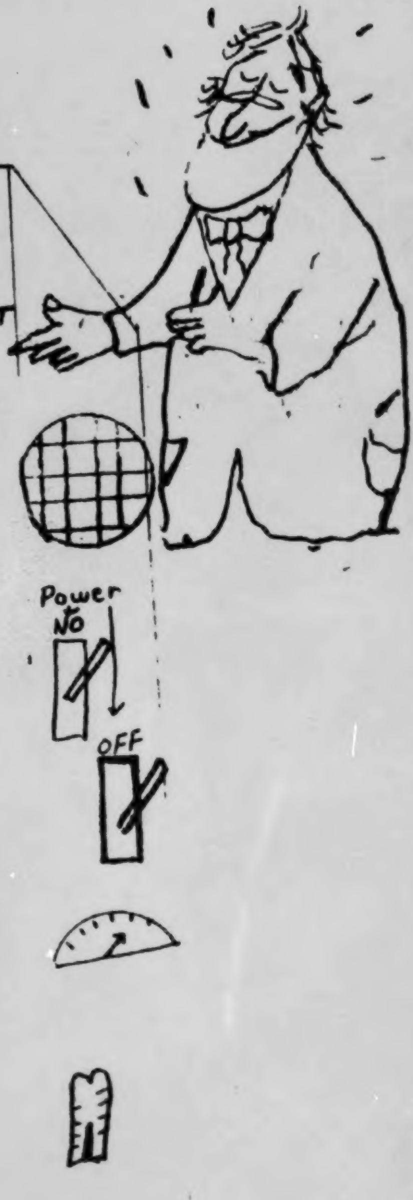
Activity: any number.

Materials:

dittos or overhead

F.B.I COMPUTER

IN-PUT	OPERATION	OUT-PUT	IN-PUT	OPERATION	OUT-PUT
81	÷9	~~7~~ 9	35	÷7	6
54	÷6	6	42	÷6	8
24	÷3	7	64	÷8	9
45	÷5	8	18	÷2	8
63	÷7	7	28	÷7	5
40	÷8	6	21	÷3	6
15	÷5	2	32	÷8	5
30	÷6	7	20	÷4	6
72	÷8	8	49	÷7	6
36	÷6	7	24	÷6	3
48	÷6	5	72	÷9	7
56	÷8	6	40	÷5	6
27	÷3	8	63	÷9	4



Procedure:

1. PROBLEM: A large earthquake has shaken up the main computer at the F.B.I. headquarters. Professor Brain has been called in to fix all the mistakes the computer has made. The professor needs help! You must supply all the correct answers in output column.

Extension:

1. Have students fill in operations or in put.

   Example: 81 ÷ ? = 9 or ? ÷ 9 = 9

2. Increase number plus use 2 place divisor. 124 ÷ 62.

3. Use it for addition, multiplication, subtraction.

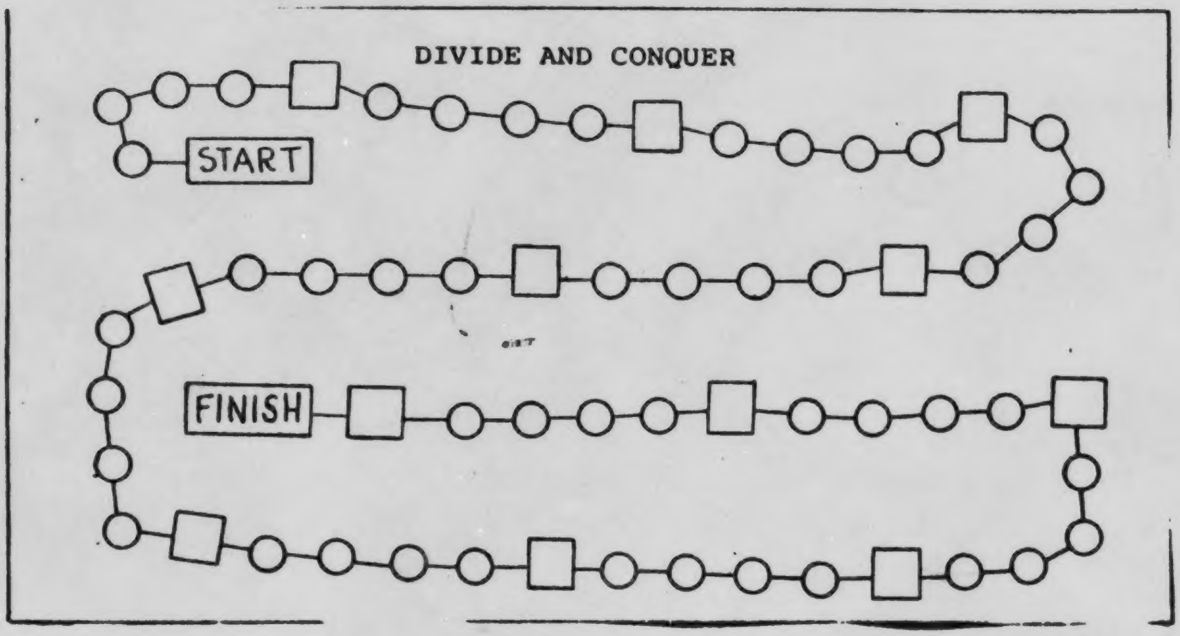
Divide and Conquer

Objective: To provide for learning the basic division facts.

Activity: for a small group

Materials:

game board made on (15" x 18") oak tag.



set of 50 (2" x 3") oak tag cards each with a different incomplete division sentence

12 ÷ 4 = ___

20 ÷ 10 = ___

72 ÷ 9 = ___

two tokens of the same color for each child
a multiplication/division fact chart (tables) may be available for verifying answers

Procedure:

1. The cards are mixed and placed face down on the table. Each child, in turn, takes the top card from the pile, shows it to the group and then completes the division sentence. If the other players agree with the answer, the child may move his token or tokens a total of that many spaces.

Example: Ann selects 12 ÷ 4 = ___ from the top of the pile.

she says "12 divided by 4 is 3."

If the children agree with her response, she may move one of her tokens 3 spaces or she may decide to move one token 2 spaces and the other 1 space.

2. A child may send an opponent's token back to START by landing on the same space. The winner is the first child to get both tokens exactly to FINISH.

Extentions:

1. This activity may be used to practice the facts for any of the four operations.

   Example: multiplication.

   10 X ___ = 50

   ___ X 6 = 48

2. The squares on the game board may contain various messages:

   a. safety squares
   b. go back to START
   c. advance 3 spaces, etc.

A-S-M-D

Inchworm

Objective: To provide practice in all basic operations.

Activity: for any number of children.

Material: a ditto for each child.

Procedure:

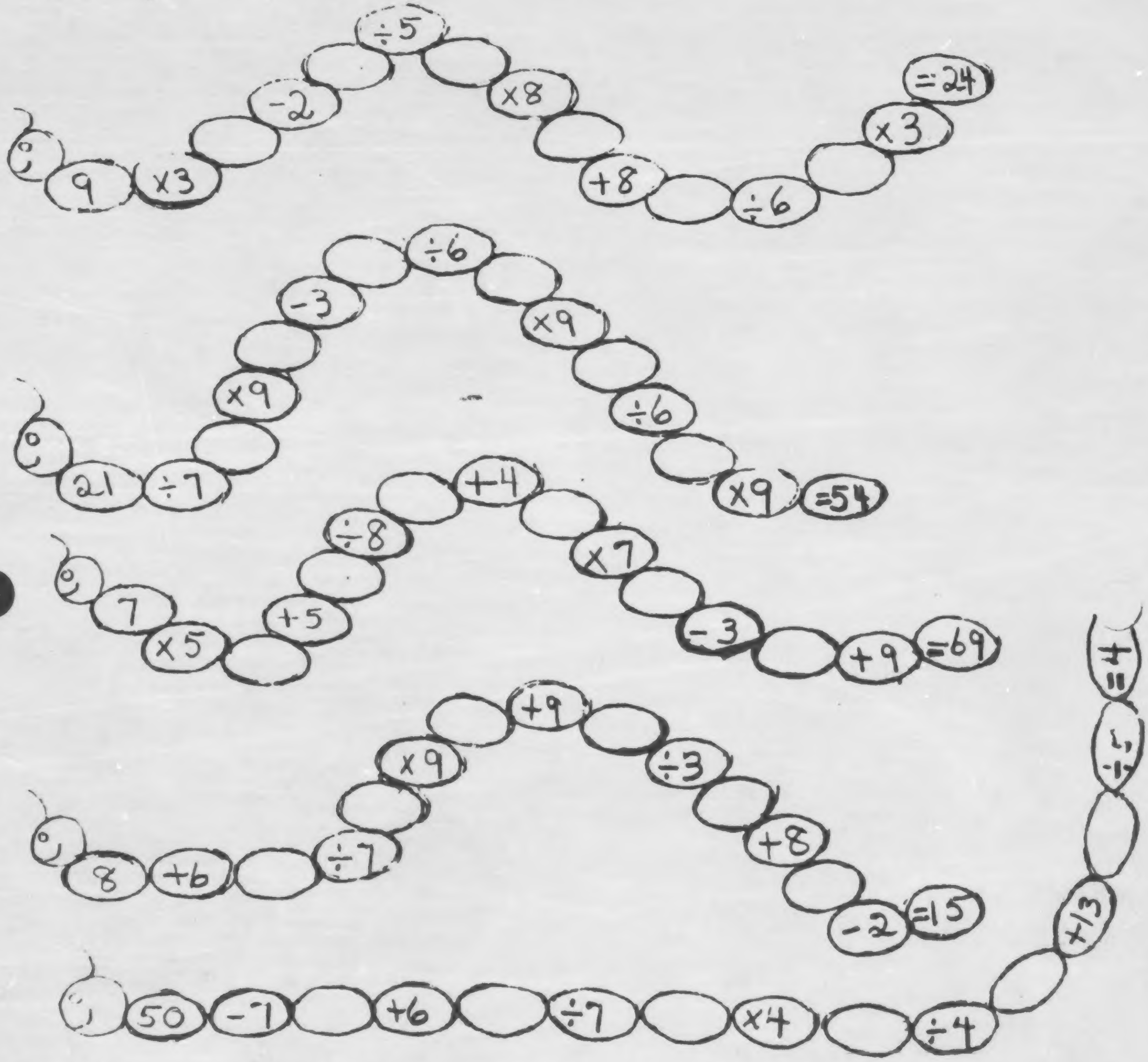
1. Each child fills in the first answer in the empty oval and applies the new rule to get the next answer.
2. This procedure continues to the final answer and tends to be self checking.

Extensions:

Change the basic operations for the needs of your children.

Inchworm

Inch your way from head to tail.


9
x3
-2
÷5
x8
+8
÷6
x3
=24
21
÷7
x9
-3
÷6
x9
÷6
x9
=54
7
x5
+5
÷8
+4
x7
-3
+9
=69
8
+6
÷7
x9
+9
÷3
+8
-2
=15
50
-7
+6
÷7
x4
÷4
+13
÷
=

Extra for fun - add all tails.

24
54
64
15
+ 4

Only for Square

Objectives: To provide practice for learning the basic multiplication and division facts.

To provide practice for renaming numbers.

Activity: for one child

Materials:

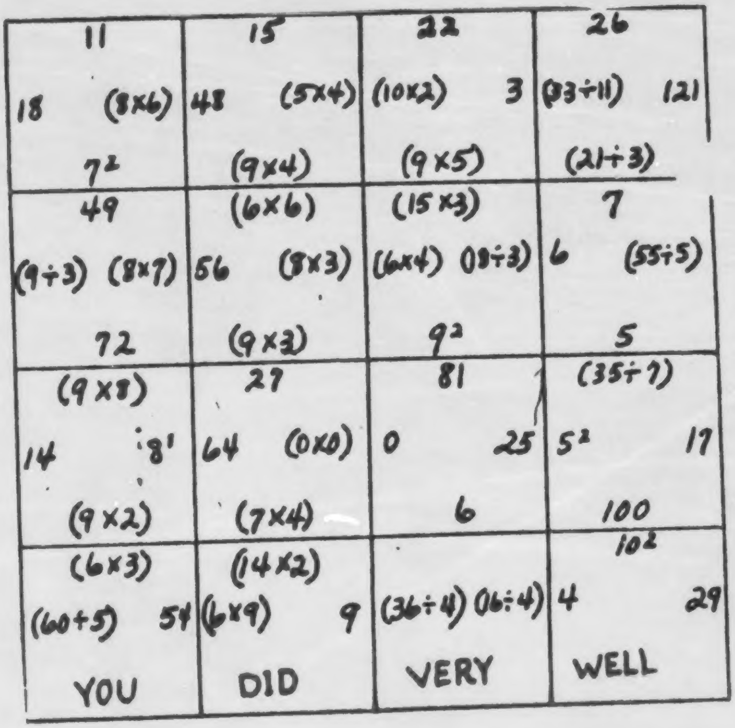
puzzle board and puzzle pieces

Procedure:

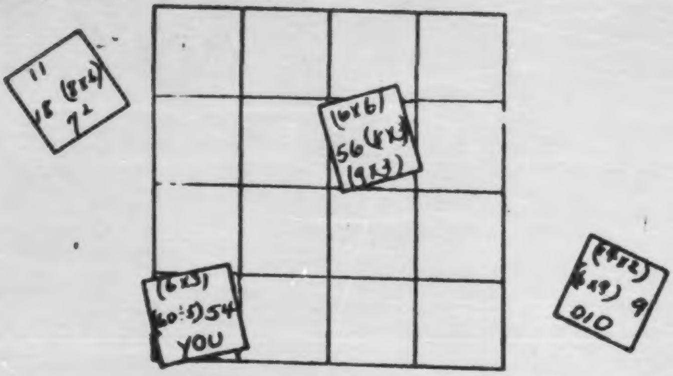
The child has to put all 16 small squares on the board so that any two sides that touch each other name the same number.

How to Make For Squares Only

1. Measure and mark an 8" x 8" piece of oak tag into 16 - 2" squares.
2. Place different expressions or names for numbers so that the names for the same number are represented on the side shared by two squares.
3. Now cut the large square into the 16 smaller squares - these are the puzzle pieces.


11
18
(8×6)
7²
15
48
(5×4)
(9×4)
22
(10×2)
3
(9×5)
26
(33÷11)
121
(21÷3)
49
(9÷3)
(8×7)
72
(6×6)
56
(8×3)
(9×3)
(15×3)
(6×4)
(18÷3)
9²
7
6
(55÷5)
5
(9×8)
14
8²
(9×2)
27
64
(0×0)
(7×4)
81
0
25
6
(35÷7)
5²
17
100
(6×3)
(60÷5)
54
YOU
(14×2)
(6×9)
9
DID
(36÷4)
(16÷4)
VERY
10²
4
29
WELL

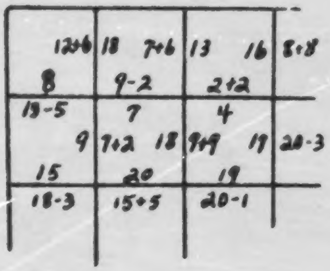
4. Measure and mark a second 8" x 8" piece of oak tag into 16 squares. This second sheet will serve as the puzzle board on which the puzzle pieces are placed.


11
(8x4)
72
(6x6)
56
(9x3)
(6x3)
54
YOU
9
010

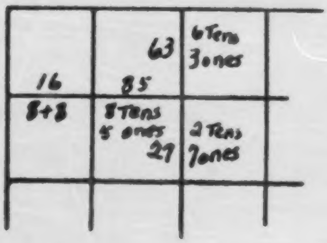
Extension:

This activity may be used to practice many mathematical concepts and skills:

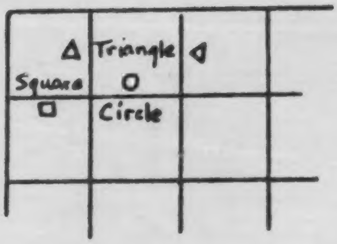
1. addition and subtraction


12+6
18
7+6
13
16
8+8
8
9-2
2+2
13-5
7
4
9
7+2
18
9+9
17
20-3
15
20
19
18-3
15+5
20-1

2. expanded form of numerals


63
6 Tens
3 ones
16
85
8+8
8 Tens
5 ones
29
2 Tens
9 ones

3. identifying geometric shapes


△
Triangle
◁
Square
○
□
Circle

Droodles

Objective: To provide practice with multiplication and division facts.

Activity: for one child or the entire class.

Materials:

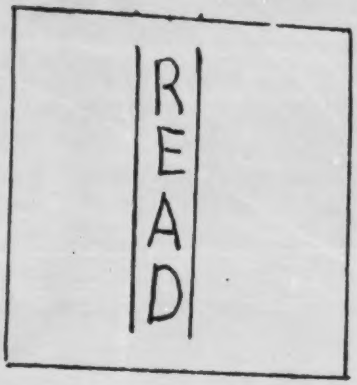
a ditto for each child

Procedure:

Solve the equations and solve the droodle. Each answer may be used only once.

Droodle

What is the name of the droodle?



___ ___ ___ ___   ___ ___ ___ ___ ___ ___ ___
5 7 8 4   24 7 3 42 7 7 9

___ ___ ___   ___ ___ ___ ___ ___
3 36 7   32 48 9 7 6

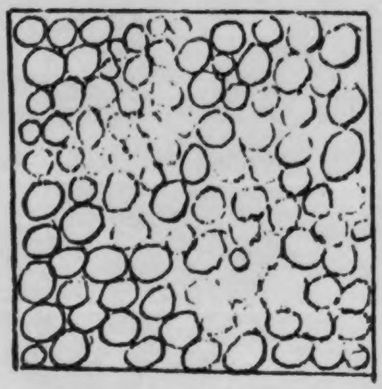
Each answer may be used only once.

21 ÷ 7 = ___ = T
36 ÷ 9 = ___ = D
8 x 6 = ___ = I
48 ÷ 6 = ___ = A
7 x 6 = ___ = W
81 ÷ 9 = ___ = N
56 ÷ 8 = ___ = E
27 ÷ 9 = ___ = T
35 ÷ 5 = ___ = E
6 x 4 = ___ = B

36 ÷ 6 = ___ = S
54 ÷ 6 = ___ = N
9 x 4 = ___ = H
42 ÷ 6 = ___ = E
45 ÷ 9 = ___ = R
28 ÷ 4 = ___ = E
8 x 4 = ___ = L
63 ÷ 9 = ___ = E
49 ÷ 7 = ___ = E

What is the name of the picture?

4)485 = F



3)624 = I

5)425 = A

4)524 = L

6)372 = S

7)245 = R

3)825 = U

6)204 = J

5)340 = T

7)294 = C

4)176 = Y

8)256 = N

5)665 = M

3)741 = E

8)344 = G

122 131 44 208 32 43

62 85 275 42 247 35

[illegible] 35 85 122 122 208 42

34 85 133

Division Riddle

Objective: To provide practice in the use of division.

Activity: for any number.

Materials:

dittos or overhead

Procedure:

1. Students will solve division problems at bottom of ditto.
2. Students will place correct letters to each answer above.
3. Students will then solve riddle (Jump out of the way!)

How can you avoid falling hair?

_____ 81 _____ 72 _____ 42 _____ 61

_____ 0 _____ 94 _____ 62 _____ 72 _____ 21

_____ 80 _____ 112 _____ 91

_____ 63 _____ 111 _____ 310 !

7⟌637	A. 9⟌999	H. 4⟌448	U. 4⟌288	T. 3⟌186
7⟌147	J. 8⟌648	U. 9⟌846	T. 5⟌400	O. 5⟌355
8⟌320	W. 2⟌126	Y. 3⟌930	M. 4⟌168	P. 3⟌183

Ring The Bell

Objective: To provide practice with remainders.

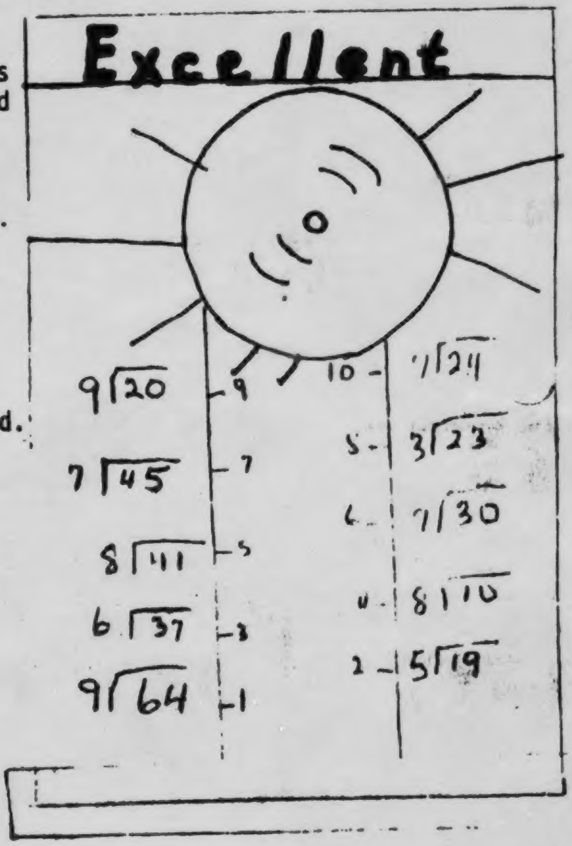
Activity: small group

Material:

chalkboard
chalk

Procedure:

1. A drawing similar to illustration is made on chalkboard.
2. Players from each of two teams take turns coming to the board to write in the answer.
3. One team uses right side and the other team uses left side.
4. The first team to ring the bell wins.


Excellent
9⟌20 – 9
7⟌45 – 7
8⟌41 – 5
6⟌37 – 3
9⟌64 – 1
10 – 7⟌24
5 – 3⟌23
6 – 7⟌30
0 – 8⟌10
2 – 5⟌19

Extension:

Large division problems may be used.

Remainder Race

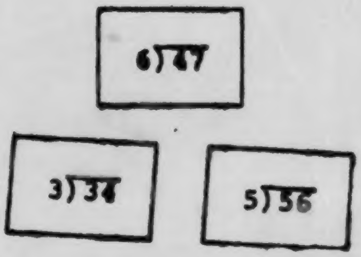
Objective: To provide practice dividing two place numbers by one place numbers.

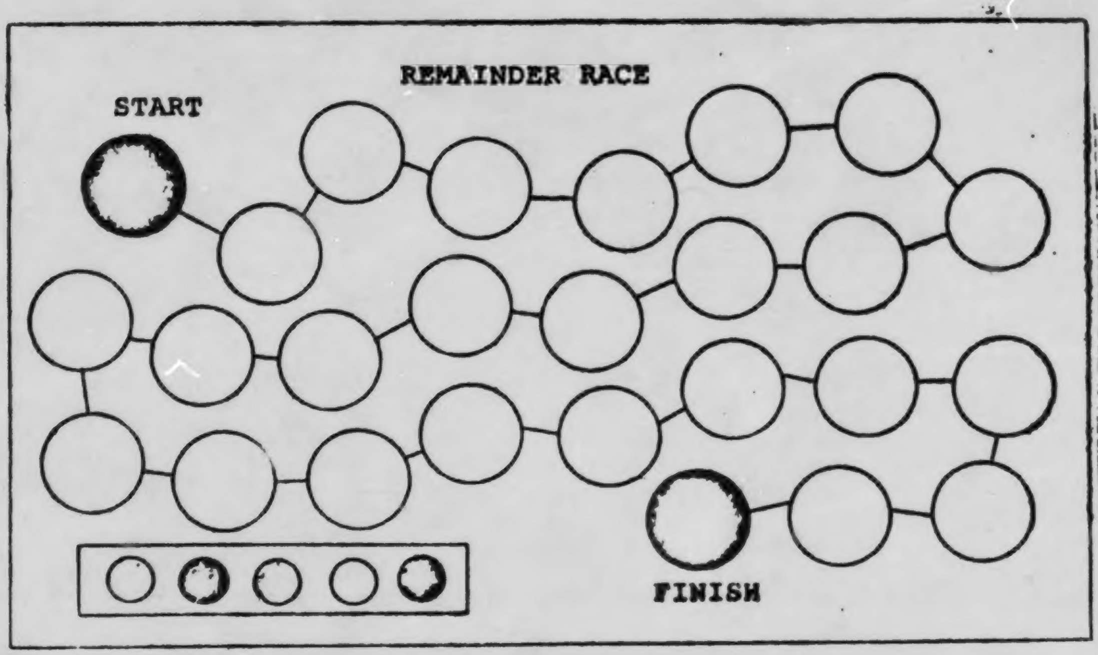
To provide practice with division problems involving remainders.

Activity: for a small group.

Materials:

gameboard made on (15" x 18") oak tag
set of 35 (3" x 2") oak tag cards
    each having a division problem with a two-place dividend and a one-place divisor; at least 25 of these should involve remainders
a different token for each child
recording paper for each child





Procedure:

1. The cards are mixed and placed face down on the table. Each child, in turn, takes the top card from the pile, shows it to the group and computes the problem orally. The other children record the problem and check the answer. If the correct quotient has a remainder the child may move his token that number of spaces.

   Example: Marie's card is $\boxed{8\overline{)74}}$

   She says, "74 divided by 8 is 9 (sets of 8) with a remainder of 2 ones."

   Marie then may move her token 2 spaces along the board.

2. The cards are placed at the bottom of the pile after they have been used.

3. If a child gives an incorrect answer he may not move for that turn.

4. The winner is the first child to reach the FINISH.

Extensions:

1. The level of sophistication for this activity can be varied by developing cards appropriate to the skill needed to be practiced.

   Example:

   a. simple facts

   $\boxed{4\overline{)15}}$ $\boxed{2\overline{)9}}$ $\boxed{3\overline{)11}}$

   b. division by 10's

   $\boxed{10\overline{)47}}$ $\boxed{10\overline{)105}}$ $\boxed{10\overline{)242}}$

   c. division of 3 place dividends by 2 place divisior

   $\boxed{25\overline{)382}}$ $\boxed{31\overline{)315}}$ $\boxed{16\overline{)145}}$

   In this case shildren may use pencil and paper to compute.

Division Race

Objective: To use the subtractive divisor algorithm with two-place divisors.

Activity: Individual, small group or whole class

Materials:

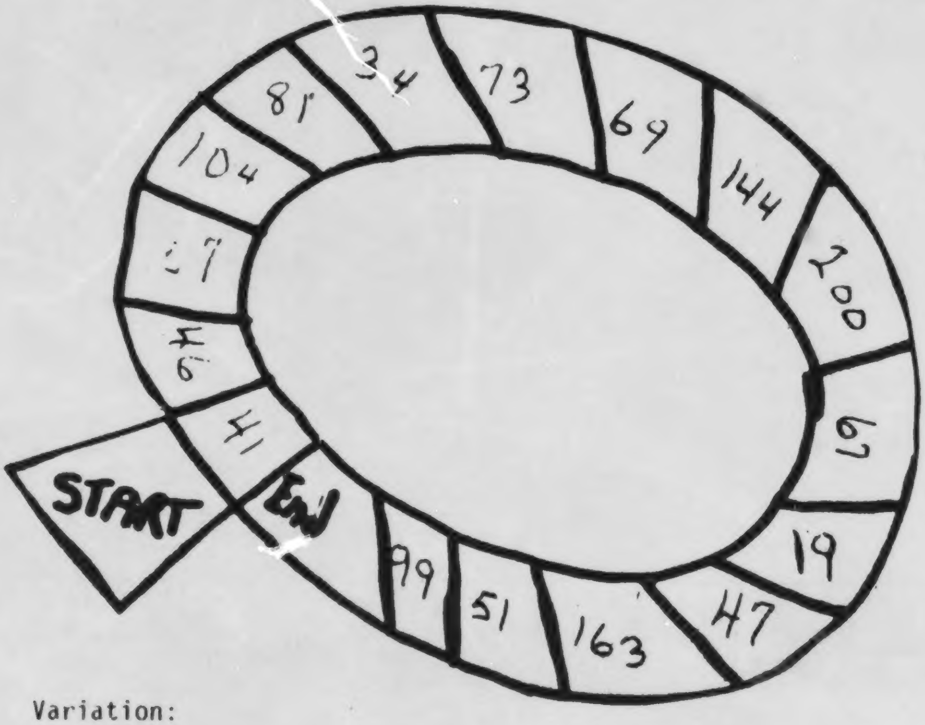
a set of eight 2" x 3" cards marked with the numerals 2 - 9, one on each card
3 different markers
a racetrack

Procedure:

1. The players each draw a card in turn and move their markers the number of spaces indicated by the remainder they get when they divide the number shown on the card into the number their marker is on.

2. If the remainder is zero, their marker remains in the same place for that turn.

3. The first person to reach the finish line is the winner.



Variation:

Have the marker moved back two places if the indicated space is already occupied.

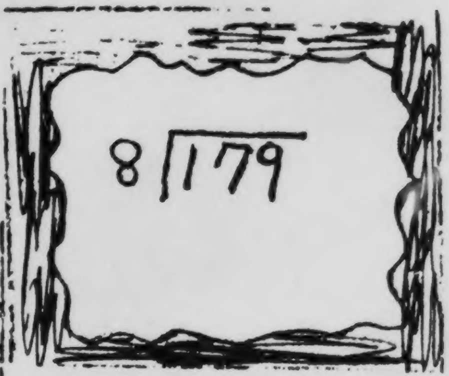
Math-Toe Challenge

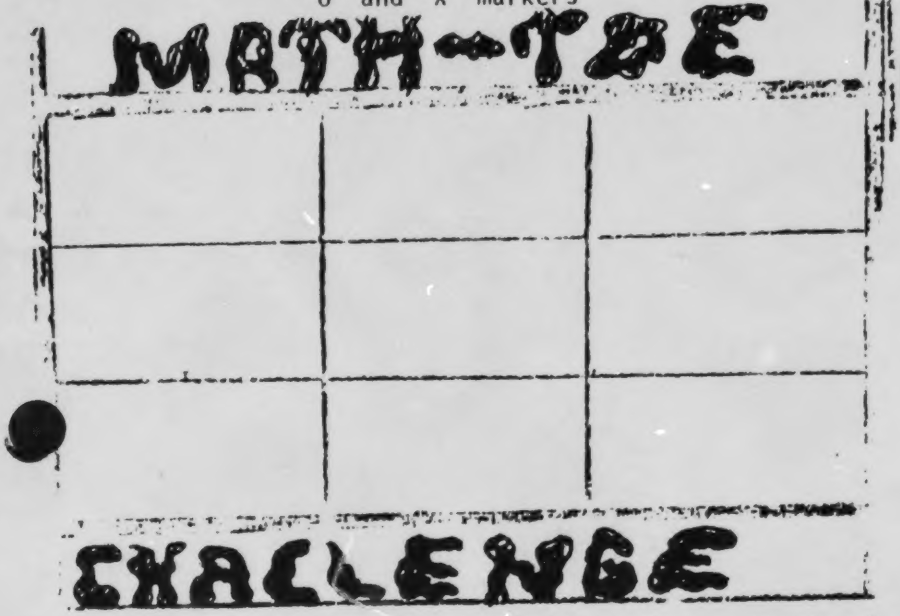
Objective: To provide practice using any type of division problem.

Activity: for small or large group.

Materials:

prepared cards with division problems
tic-tac-toe game boards
"O" and "X" markers





1. Class or individuals are divided into two groups, one representing the "x's" and one representing the "O's".

2. A child then draws a card from the pile and does the problem listed. (Problem may be done on black board or sheet of paper.)

3. If he or she gets the problem right he then places an X and place on the board. He then picks another student from the second group.

4. If the student gets it wrong, no mark is placed on tic-tac-toe board and another student from second group comes up and takes a card and proceeds to solve the problem.

5. Three in a row wins.

Extensions:

This game can be varied to fit any operation.

Division Robot

Objective: To provide practice in division skills.

Activity: for any number.

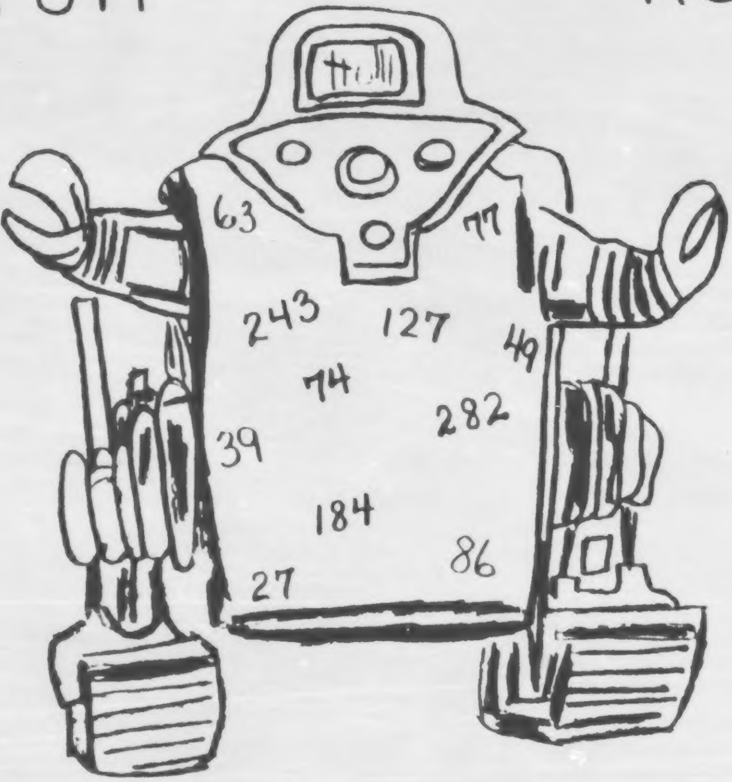
Materials:

dittos

Procedure:

1. Student follows directions on the sheet, solving the problems and finding the number that is not on the robot.

Division Robot


63
77
243
127
49
74
282
39
184
86
27

1. Solve each problem
2. Find the answer that is not on the robot.

A. $7\overline{)602}$ B. $8\overline{)312}$ C. $5\overline{)635}$ D. $6\overline{)498}$

E. $9\overline{)567}$ F. $4\overline{)736}$ G. $3\overline{)846}$ H. $7\overline{)539}$

I. $9\overline{)243}$ J. $6\overline{)444}$ K. $4\overline{)972}$ L. $8\overline{)392}$

D

Division Bingo

Objective: To provide practice in the use of division problems with two or three digits in quotient.

Activity: for any number

Material:

ditto math sheets

Procedure:

1. Each student solves each problem.
2. He then circles each answer on the Bingo card.
3. Each time they get five circles in a row they have a Bingo.
4. How many can they find? (ans. - 3)

PLAY DIVISION BINGO.

Solve each problem. Then circle each answer on the Bingo card below. Every time you get five circles in a row, you have Bingo. How many times you get Bingo?

A. $$\begin{array}{r} 35 \\ 5\overline{)175} \\ -15 \\ 25 \\ -25 \\ 0 \end{array}$$

B. $3\overline{)128}$

C. $4\overline{)377}$

D. $8\overline{)899}$

P. $8\overline{)459}$

E. $3\overline{)848}$

B	I	N	G	O
133r6	56	73r5	60r7	40r4
21	137r5	27	94r1	64r8
82r2	62r3	35	332r1	47
42r2	81r1	39r5	112r3	18
282r2	239	52	67	57r3

O. $9\overline{)547}$

F. $7\overline{)392}$

N. $6\overline{)827}$

G. $6\overline{)443}$

M. $4\overline{)950}$

I. $7\overline{)197}$

L. $7\overline{)937}$

J. $5\overline{)204}$

K. $2\overline{)665}$

$\overline{)163}$

Division Riddle

Objective: To provide practice in the use of division problems with remainders.

Activity: for any number.

Materials:

dittos or overhead

Procedure:

1. Students will solve division problems at the bottom of the ditto.
2. Students will place correct letters to each answer above.
3. Students will then solve riddle. (A MONSTER LAUGHING IT'S HEAD OFF.)

What goes ha-ha-ha-ha-[illegible] !

$\overline{24r3}$ $\overline{71r3}$ $\overline{69r6}$ $\overline{90r5}$ $\overline{56r2}$ $\overline{42r2}$ $\overline{87r3}$ $\overline{}$

$\overline{28r3}$ $\overline{24r3}$ $\overline{52r2}$ $\overline{21r4}$ $\overline{18r2}$ $\overline{30r3}$ $\overline{90r5}$ [illegible]

$\overline{30r3}$ $\overline{42r2}$ $\overline{56r2}$ $\overline{18r2}$ $\overline{87r3}$ $\overline{24r3}$ $\overline{73r2}$

$\overline{69r6}$ $\overline{39r5}$ $\overline{39r5}$.

			U $3\overline{)157}$	N $7\overline{)635}$	G $5\overline{)109}$
$3\overline{)128}$	M $5\overline{)358}$	F $9\overline{)356}$	R $8\overline{)327}$	I $4\overline{)123}$	D $2\overline{)147}$
$5\overline{)438}$	L $9\overline{)255}$	S $3\overline{)170}$	A $8\overline{)195}$	H $6\overline{)110}$	O $8\overline{)555}$

PROBLEM SOLVING

(CODED PS)

PS-A-S-M-D

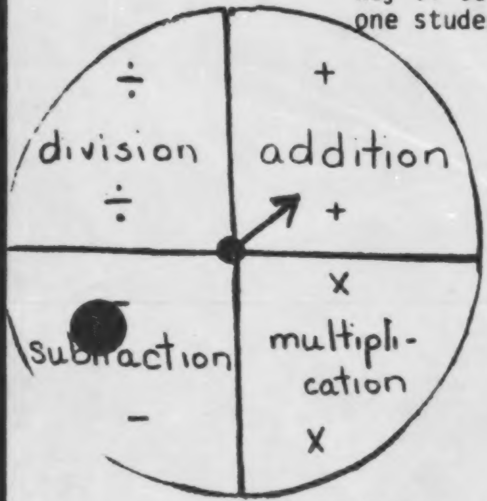
SPIN A TERM

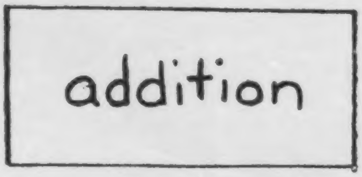
Objective: To provide practice in all four operations and to strengthen the students understanding of mathematical terms.

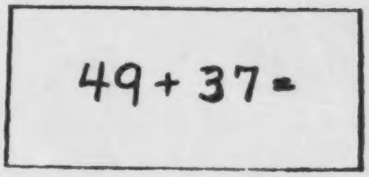
Activity: for 2 - 6 players.

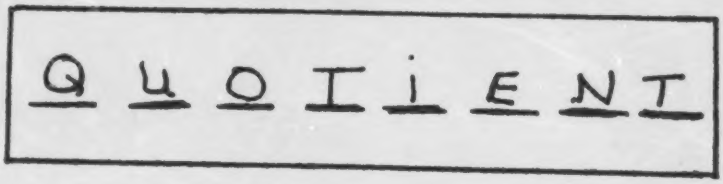
Materials:

spinner with a section for each operation (+, -, x, ÷)
cards, four sets: one for addition problems, one for subtraction problems, one for multiplication problems, and one for division problems.
set of cards with hangman-type blanks for mathematical terms.
key of terms and problems
one student to check problems









Procedure:

1. To determine the first player; each person spins the spinner and the one who lands on the division card is first. Play follows to the left.

2. To begin play, a term card is selected (all cards have been shuffled).

3. Player one starts by spinning the spinner and selecting a card from the appropriate pile (ie. if spinner stops on subt. area, player draws a subt. card). He then tries to answer the problem on the card. If he is correct, he can select a letter for the term. If the letter is there, he continues to play. If it is not there, play continues to the left. If he cannot correctly answer the problem, play also continues to the left.

4. The game continues in this manner until the term is guessed. The child receives a token for guessing correctly. A new term is then selected. Game continues for an allotted time. The winner is the student who has the most tokens.

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MATCH UP II

Objective: To provide practice recognizing key terms and phrases in problem solving using multiplication and division.

Activity; For 2 to 4

Materials; Cut out 24, 2" x 3" oak tag cards. On 12 cards write the following terms (terms only):

1.	how many in all	(x)
2.	how much more	(-)
3.	How many in each	(÷)
4.	what is the total	(x)
5.	what is the product	(x)
6.	all together	(x)
7.	total distance	(x)
8.	remainder	(÷)
9.	How many in each group	(÷)
10.	what is the quotient	(÷)
11.	how many in each row	(÷)
12.	what is the total cost	(x)

On the other 12 cards, place the corresponding symbols (x,÷) (symbols only).

Procedure:

1. Shuffle the cards together and place all cards face down on the table.
2. The first player turns over two cards, trying to match a phrase and symbol. If the child succeeds in matching a phrase and a symbol, he takes the cards and continues to play. If he does not match, play continues to the left.
3. The game is finsihed when all cards have been used.
4. The winner is the child who has the most cards.

NOTE: Teacher should explain to students that the only operations involved are multiplication and division.

MATCH-UP III

Objective: To provide practice recognizing key terms and phrases in problem solving.

Activity: For 2 to 4

Materials: Make 22 cards (using index cards). On 11 cards, write the following problems (problems only):

1. What is the sum of 8 + 9? (+)
2. Pat earns $5.00 per hour. How much will she earn in 5 hours? (x)
3. There are 21 tennis balls and 3 balls fit in each can. How many cans will you need? ( )
4. John spent $12.95 for a pro football. He gave the salesman a $20.00 bill. How much change should he receive? (-)
5. A six pack of coke cost $1.20 How much would 5 six packs cost? (x)
6. A six pack of coke cost $1.20. How much would one can cost? ( )
7. The baseball game started at 7:00 P.M. It ended at 10:30 P.M. How long was the game? (-)
8. Mr. Jones went on a trip. He drove 20 miles each day. After 7 days,how many miles did he drive? (x)
9. On a map, 1 centimeter equals 10 kilometers. How many kilometers does 6 centimeters equal? (x)
10. Anne used 61 pieces to build a log cabin. How many pieces did she have left over in her 90-piece set? (-)
11. Mrs. Jones went shopping. She spent $1.50, $2.25, and $6.85. How much did she spend? (+)

NOTE: Use old workbooks for problems. On the other 11 cards, write the corresponding symbols (+, -, x,) (Symbols only).

Procedure:

1. Shuffle the cards together and place all cards face down on the table.
2. The first player turns over two cards, trying to match a problem with the symbol needed to solve the problem. If the child succeeds in matching, he takes the cards and continues to play. If he does not match, play continues to the left.

PS

Procedure (con't):

3. The game is finished when all cards have been used.
4. The winner is the child who has the most cards.

NOTE: The problems do not have to be solved.

MONEY BINGO

Objective: Practice in solving money problems.

Activity: For small group or entire class

Materials: Gameboards, made as a Bingo board, for each participant. Across the top of each board write amounts of money starting with 50¢ and ending with 1¢ (see example); markers, money cards to be used by caller.

Procedure: One child or teacher acts as a caller using the money cards. After the amount of money is called, player must use the least number of coins for that amount and cover the coins, wherever he choses on his gameboard.

Example: Suppose an amount of 79¢ was called. The least coins to use: 50¢, 25¢, and 4 - 1¢, and player may use any space under 50¢, 25¢, and 4 - 1¢ on his gameboard.

The caller will keep a tally of amounts called.

Play continues until a row down, across, or diagonally is covered.

Extension: Coupons clipped from food ads in daily newspapers are put in a container.

When the food coupon is called, an amount is indicated that was used to purchase the food. The players must cover the game board for the change received from purchases.

Example: Cheese Pizza $1.09 and player would give the clerk $2.00. Player must cover the largest amounts possible for change received from the purchase. Play continues until a row across, down, or diagonally is covered.

AROUND THE CLOCK

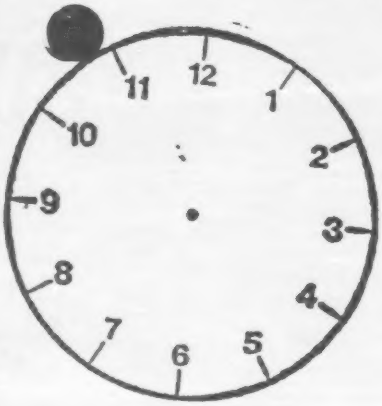
Objective: To provide practice with problem solving, involving time.

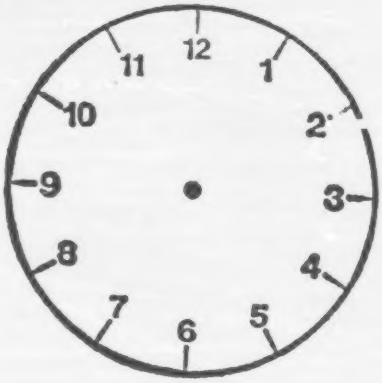
Activity: For 2-4 players

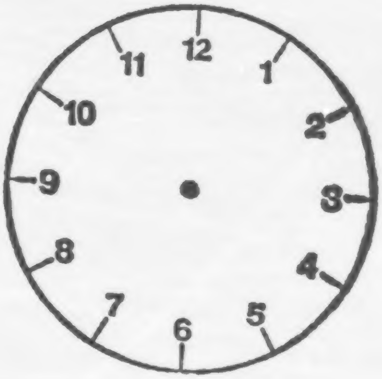
Materials: 20 cards with pictures of clocks. 20 problem cards, 1 die

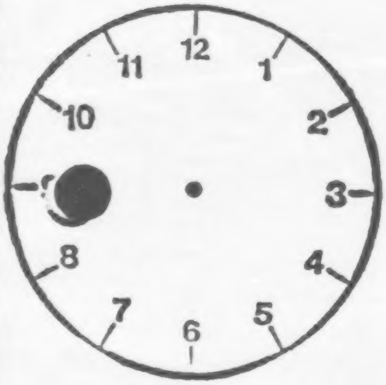
Procedure:

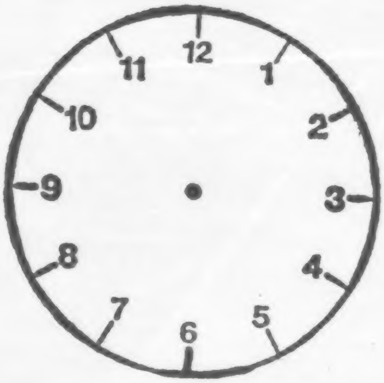
1. Each child rolls the die and the child with the highest number goes first.
2. A child then takes a time card. He then must give the correct time. (Time may be checked by turning card over).
3. If the child tells the correct time, he may pick a word problem card. If he picks a broken clock card he loses his turn.
4. For a correct response to the word problem card, the child receives 1 point.
5. The first child to receive 8 points is the winner. They may then shuffle the time and problem cards and play again.

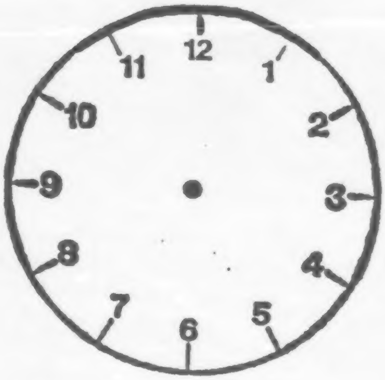


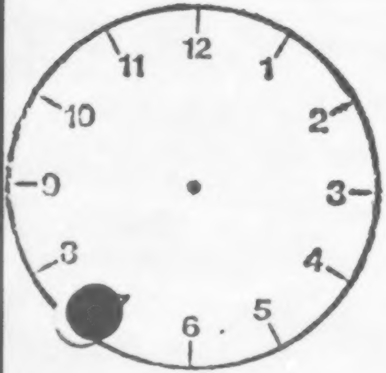


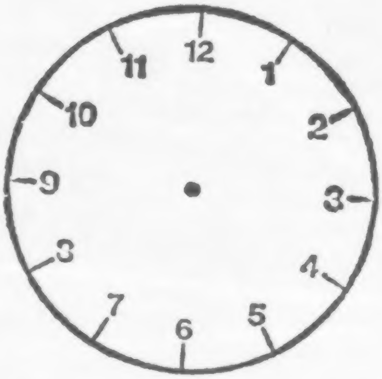


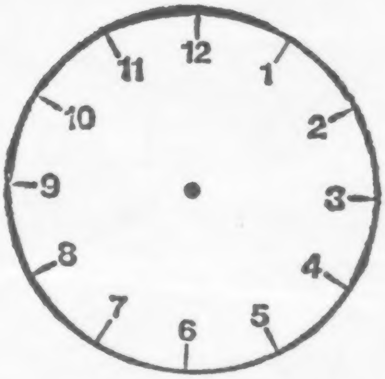


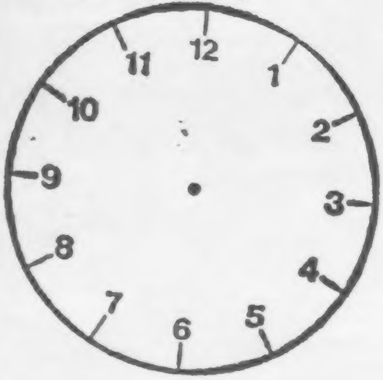


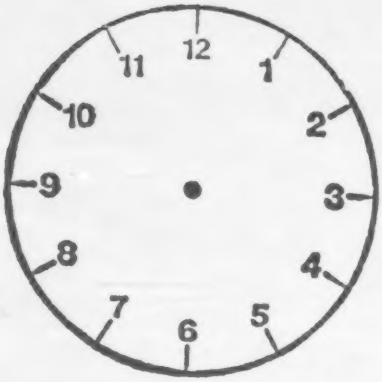


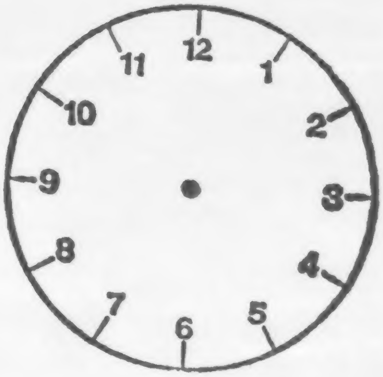


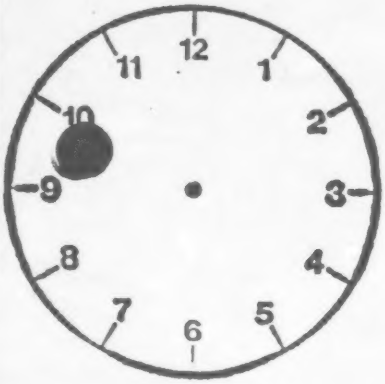


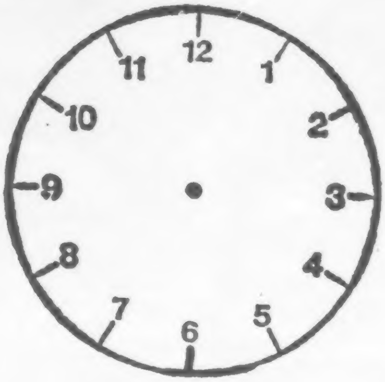


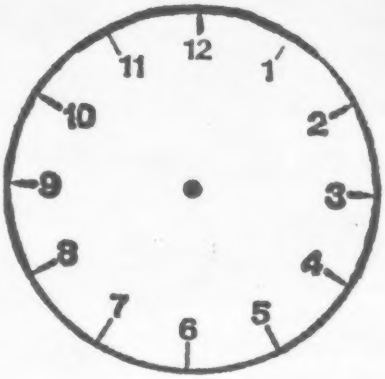


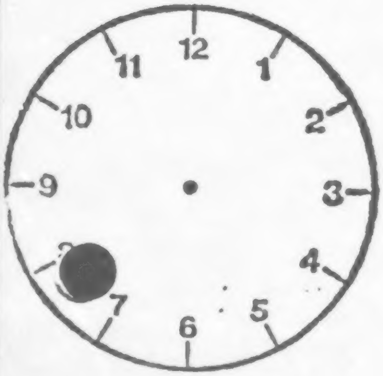


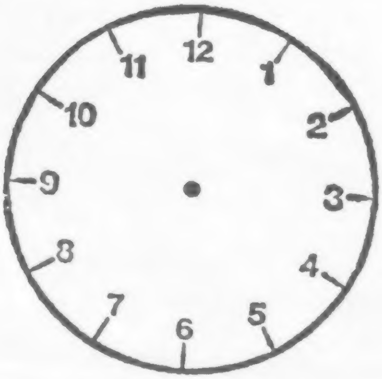


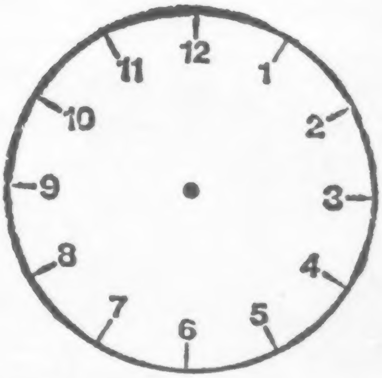


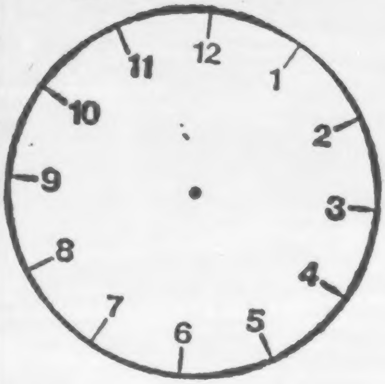








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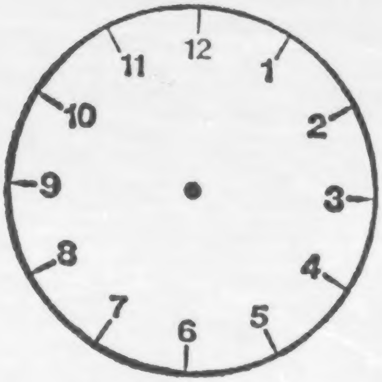
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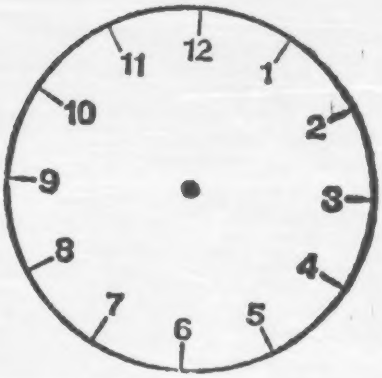
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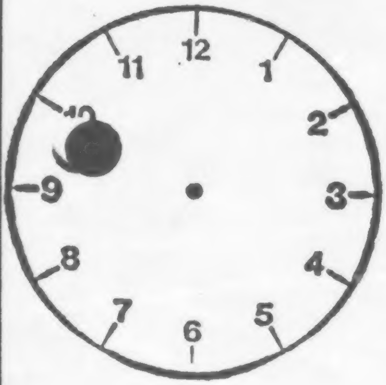
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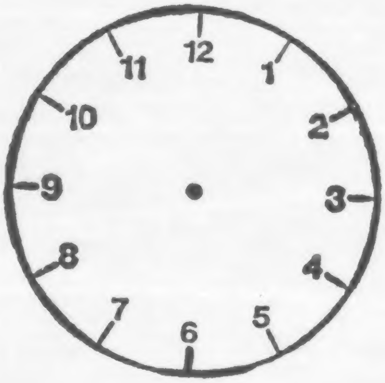
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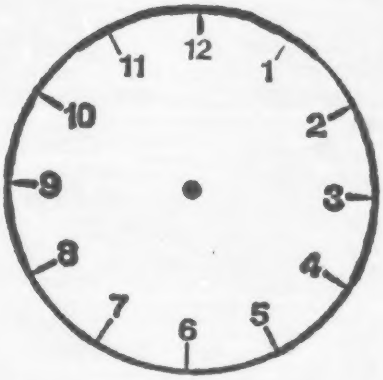
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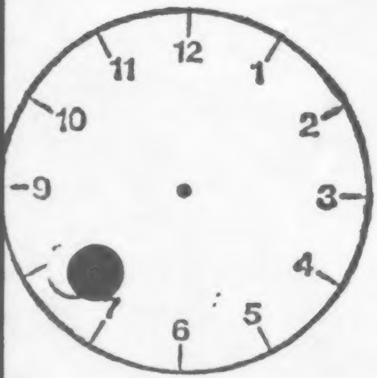
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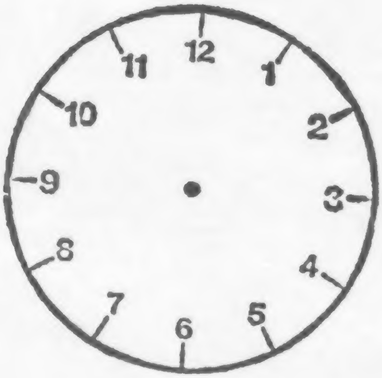
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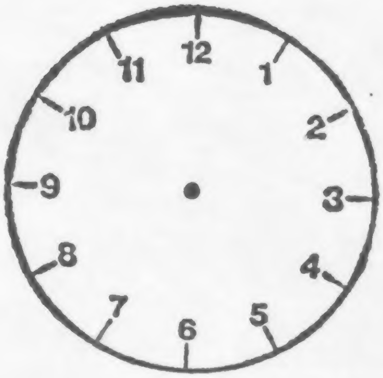
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SIX PEOPLE WORK FOR 5 HOURS EACH, HOW MAY HOURS DID THEY WORK ALTOGETHER?

3

IF MIKE EARNS 3 DOLLARS AN HOUR, HOW MUCH WILL HE EARN IN NINE HOURS?

8

AT THE END OF THE DAY, JIM HAD EARNED 45 DOLLARS. IF HE EARNS $5 AN HOUR, HOW MANY HOURS DID HE WORK?

5

AT 5:10, SALLY PUT HER CAKE IN THE OVEN. IF IT HAS TO BAKE FOR 40 MINUTES, WHAT TIME SHOULD SHE TAKE IT OUT?

4

CHUCK GOES TO WORK AT 6:00 A.M. EVERY MORNING. HE COMES HOME EVERY DAY AT 4:00 P.M. HOW MANY HOURS IS HE GONE EVERY DAY?

7

KAREN WAS FINALLY DRESSED FOR THE PARTY. IT WAS 10:48. IT HAD TAKEN HER 38 MINUTES. WHAT TIME DID SHE START?

6

BILL WENT TO THE BASKETBALL GAME AT 9:47. IF THE GAME TOOK 1 HOUR AND 13 MINUTES, WHAT TIME DID THE GAME END?

1

IF SANDY LEFT SCHOOL AT 11:52, WHAT TIME WILL SHE ARRIVE HOME IF IT TAKES HER 27 MINUTES TO WALK?

2

JOHN HAS BEEN PAINTING FOR 47 MIN-[illegible]S. IT IS NOW 10:00 A.M. AT WHAT TIME DID JOHN START PAINTING?

9

GEORGE MOWED FIVE LAWNS IN FIVE HOURS. IF HE MADE $12.50, HOW MUCH DID HE MAKE PER HOUR?

10

A PLANE TRAVELED A DISTANCE OF 2,000MILES. IF THE PLAN FLIES AT A SPEED OF 500 MPH, HOW MANY HOURS DID IT TAKE THE PLANE TO GO THE 2,000 MILES?

11

IT TAKES 13 HOURS TO FLY TO CHINA. IF ANN LEFT AT 7:00 A.M. WHAT TIME WOULD IT BE WHEN SHE ARRIVED IN CHINA?

12

MR. DAVIS DROVE AT 55 MPH FOR 4 HOURS. HOW FAR DID HE DRIVE?

13

IT TOOK BILL 35 MINUTES TO WASH ONE CAR. HOW LONG WILL IT TAKE HIM TO WASH 9 CARS?

14

MR. OXFORD IS WAITING FOR THE TRAIN. IT IS NOW 6:45 A.M. THE TRAIN WILL ARRIVE AT 7:30 A.N. HOW LONG MUST MR. OXFORD WAIT FOR THE TRAIN TO COME?

15

JOHN WENT TO DISNEYLAND ON HIS VACATION. HE SPENT 45 MINUTES WAITING TO GET ON ONE RIDE, 35 MINUTES FOR ANOTHER, 60 MINUTES FOR ANOTHER, AND 50 MINUTES WAITING FOR ANOTHER. HOW LONG DID HE SPEND WAITING TO GET ON RIDES?

16

Kim's mother told her to be home by 5:00 p.m. She came home at 6:30. How late was she?

17

Each child walks for 8 minutes. If there are 4 children, how many minutes did they walk altogether?

18

Mr. Harris paid Tom $2.50 an hour shoveling snow. If Tom worked 3 hours, how much did he earn?

19

Little Cindy went to bed at 8:00 p.m. She woke up at 7:00 A.M. the next morning. How many hours did she sleep?

20

The movie starts at 7:00 p.m. and ends at 9:20 p.m. How long was the movie?

21

Fred went to visit his friend, Paul. He left at 3:15. His mother told him to be back in 2½ hours. What time does Fred have to be home?

22

Sally is getting paid $3.25 an hour to babysit for Terrible Eddie. If she babysat for 3 hours how much did she make?

23

The American Airlines plane leaves New York City at 7:17. If the trip to Cortland takes 90 minutes, what time will the plan arrive in Cortland.

24

ANSWER KEY FOR
AROUND THE CLOCK

1. 11:00
2. 12:19
3. 30 hours
4. 5:50
5. 9 hours
6. 10:10
7. 10 hours
8. $27.00
9. 9:13
10. $2.50
11. 4 hours
12. 8:00 p,m.
13. 2:20 miles
14. 315 minutes
15. 45 minutes
16. 190 minutes
17. 1 hour 30 minutes
18. 32 minutes
19. $7.50
20. 11 hours
21. 2 hours 20 minutes
22. 5:45
23. $9.75
24. 8:47

RUN-A-RISK

Objective: To provide practice in problem solving using different operations.

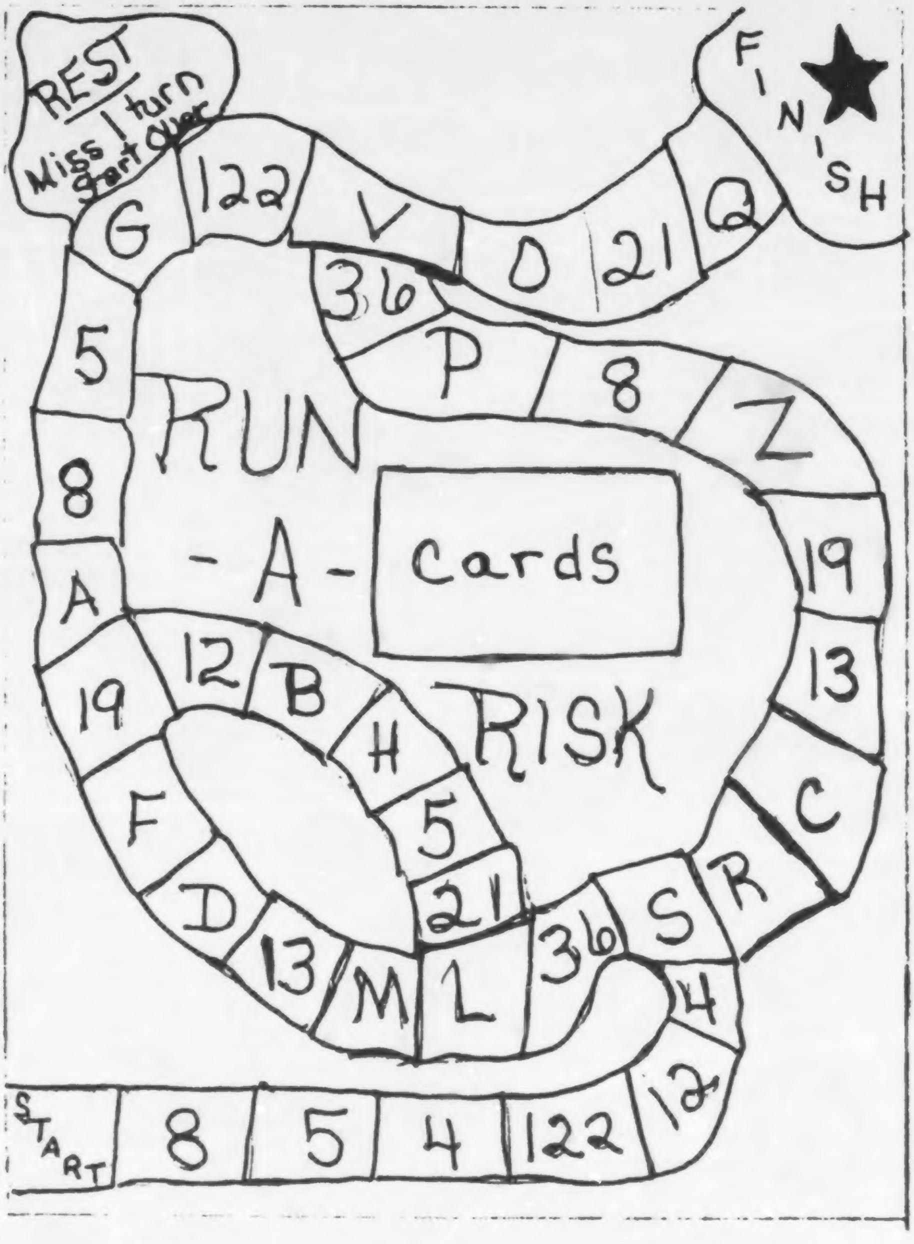
Activity: For 2 to 5 players

Material: Answer Key; Game Board (see diagram) Playing cards consisting of 20 word problem cards (see examples) letter cards (1 per letter) S,R,C,Z,P,V,O, Q,G,A,F,D,M,L,H,B. 2 cards of each of the following:

Move Ahead 2
Move Ahead 3
Move Back 2
Go to the Rest Area
Go to the Rest ARea 1 } 5 cards each
Move Ahead I }

Procedure: Provide Scrap paper.

1. Shuffle cards together and place in center of board.
2. After deciding who goes first, child picks card. If card has word problem, child solves and moves to the closest answer.
3. If the child picks a lettered card, child moves to that letter. Child also follows direction on the "Move" cards.
4. If the child picks a "Rest Area" card after losing one turn the child must start over.
5. Discard each card after using.
6. At the end of the card pile if there is no winner the cards are reshuffled and palced in the center of the board.
7. Winner is first one to the FINISH*****


REST
Miss 1 turn
start over
FINISH
RUN
-A-
Cards
RISK
START
8
5
4
122
12
4
36
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R
C
13
19
Z
8
P
36
Q
21
D
V
122
G
5
8
A
19
12
B
H
5
21
L
M
13
D
F

RUN-A-RISK

$244. Two people. How much ONEY FOR EACH ONE?

1

DANNY WENT TO THE STORE AND BOUGHT 36 EGGS. HE DROPPED 17. HOW MANY ARE LEFT?

2

BILL PUT 30 GALLSON OF GAS IN HIS TRUCK. AFTER DRIVING TO WORK AND HOME AGAIN, HE USED 9 GALLONS. HOW MANY GALLONS OF GAS WERE LEFT?

3

6 BABIES. EACH BABY HAS ONLY 2 FRONT TEETH. HOW MANY TEETH ALTOGETHER?

4

THERE ARE 24 DOUGHNUTS IN A BOX AND 6 VERY HUNGRY CHILDREN. NOW IF GREG THE GLUTTON ISN'T TOO PIGGISH AND ALL THE CHILDREN GET THE SAM AMOUNT, HOW MAY DOUGHNUTS FOR EACH CHILD?

5

BEFORE SHE WENT BABYSITTING, MISSY HAD $1.00. SHE EARNED $4.00 BABYSITTING. NOW, HOW MUCH MONEY DOES SHE HAVE?

6

TWO LITTLE GIRLS IN PIGTAILS. BOTH HAVE FOUR RIBBONS IN THEIR HAIR. HOW MANY RIBBONS ALTOGETHER?

7

ROB HAD $100 IN THE BANK. HE TOOK $64 OUT. HOW MUCH MONEY IS LEFT IN THE BANK?

8

177

178

RUN-A-RISK

IF YOU ATE THREE COOKIES A DAY, [illegible]W MANY COOKIES WOULD YOU EAT IN ONE WEEK?

9

5 GREEN CARS, 2 BLUE CARS, AND 1 WHITE CAR. HOW MANY CARS ALTOGETHER?

10

BOB BRO[illegible]HT TWO BRAND NEW SHIRTS. THE TOTAL COST WAS $26. IF BOTH SHIRTS COST THE SAME, HOW MUCH DID ONE SHIRT COST?

11

THERE ARE [illegible]5 PEOPLE AND 7 CARS. HOW MANY PEOPLE IN EACH CAR?

12

SAM IS 67 INCHES TALL. JOE IS 6 FEET TALL. WHAT IS THE DIFFERENCE IN INCHES?
REMEMBER 1 FOOT EQUALS 12 INCHES.

13

MIKE EARNS 12 DOLLARS A DAY. IN 3 DAYS HOW MUCH MONEY WILL HE EARN?

14

ALICE DID HOMEWORK FOR 2 HOURS BEFORE SHE WENT OUT TO PLAY. AFTER DINNER, SHE WORKED ON HER HOMEWORK FOR 2 MORE HOURS. HOW MANY HOURS DID SHE WORK IN ALL?

15

ON MONDAY, THE SMITHS DROVE 53 MILES. ON TUESDAY, THEY DROVE 175 MILES. HOW MANY MORE MILES DID THE SMITH'S DRIVE ON TUESDAY?

RUN-A-RISK

THREE LIONS RAN A TOTAL OF 24 MILES. HOW MANY MILES DID EACH LION RUN IF THEY RAN THE SAME DISTANCE?

17

JACK TOOK 5 BOOKS OUT FROM THE LIBRARY. HE ALSO SIGNED OUT 7 MAGAZINES. HOW MANY THINGS DID HE SIGN OUT ALTOGETHER?

18

TOM HAD 8 APPLES. BOB HAD 6 PEACHES. ANN HAD 5 PEARS. HOW MUCH FRUIT IN ALL?

19

TRACY WENT SHOPPING. SHE BOUGHT AN EIGHT DOLLAR BLOUSE AND A FIVE DOLLAR PURSE. HOW MUCH MONEY DID SHE SPEND?

20

ANSWER KEY FOR
RUN-A-RISK

1. $122.00
2. 19 eggs
3. 21 gallons
4. 12 teeth
5. 4 doughnuts
6. $5.00
7. 8 ribbons
8. $36.00
9. 21 cookies
10. 8 cars
11. $13.00
12. 5 people
13. 5 inches
14. $36.00
15. 4 hours
16. 228 miles
17. 72 miles
18. 12 things
19. 19 fruit

20 $13.00

Money Bingo

50¢	25¢	10¢	5¢	1¢

63¢

8¢

27¢

49¢

98¢

16¢

33¢

75¢

40¢

80¢

35¢

85¢

51¢

21¢

25¢

69¢

77¢

44¢

19¢

82¢

91¢

36¢

12¢

86¢

6¢

10¢

11¢

13¢

22¢

95¢

56¢

28¢

52¢

93¢

70¢

30¢

15¢

89¢

62¢

37¢

99¢

57¢

50¢

20¢

45¢

65¢

71¢

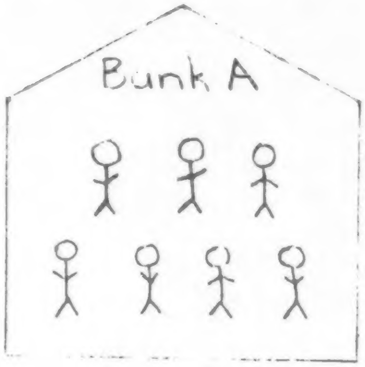
43¢

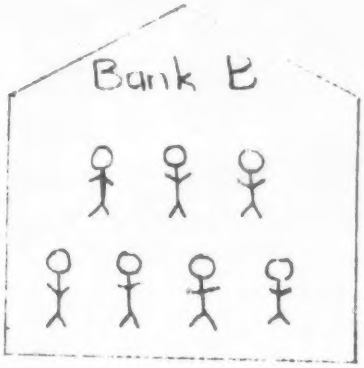
RUB OUT

Objective: To provide practice recognizing key terms and phrases in problem solving.

Activity: For small group or entire class.

Materials: On blackboard draw the following diagram representing banks and robbers, (Draw enough stick figures so that each child has a turn).





Procedure:

1. Divide class or group into two equal sections.
2. Explain to the students that the figures on the blackboard represent bank robbers and each group has its own bank that is being robbed. The boject of the game is to "rub-out" the robbers that are robbing their bank.
3. Teacher then reads problems to the students. The student must decide what operation should be used to solve the problem. If he/she chooses the correct operation, he would erase a robber from his bank. (One problem should be read to each student.) If incorrect, any team member on the other team has the chance to answer. If they answer correctly, that team member draws another robber in the opposing team's bank. (If incorrect, play would continue). After robber has been added to the bank, play would continue with the person whose turn it is on that same team.
4. The game continues until each child has had at least one turn. The team with the least number of robbers in their bank is the winner.

PROBLEM SLIDE

Objective; To provide practice in recognizing key phrases and applying these to the four basic operations.

Activity: One to four children.

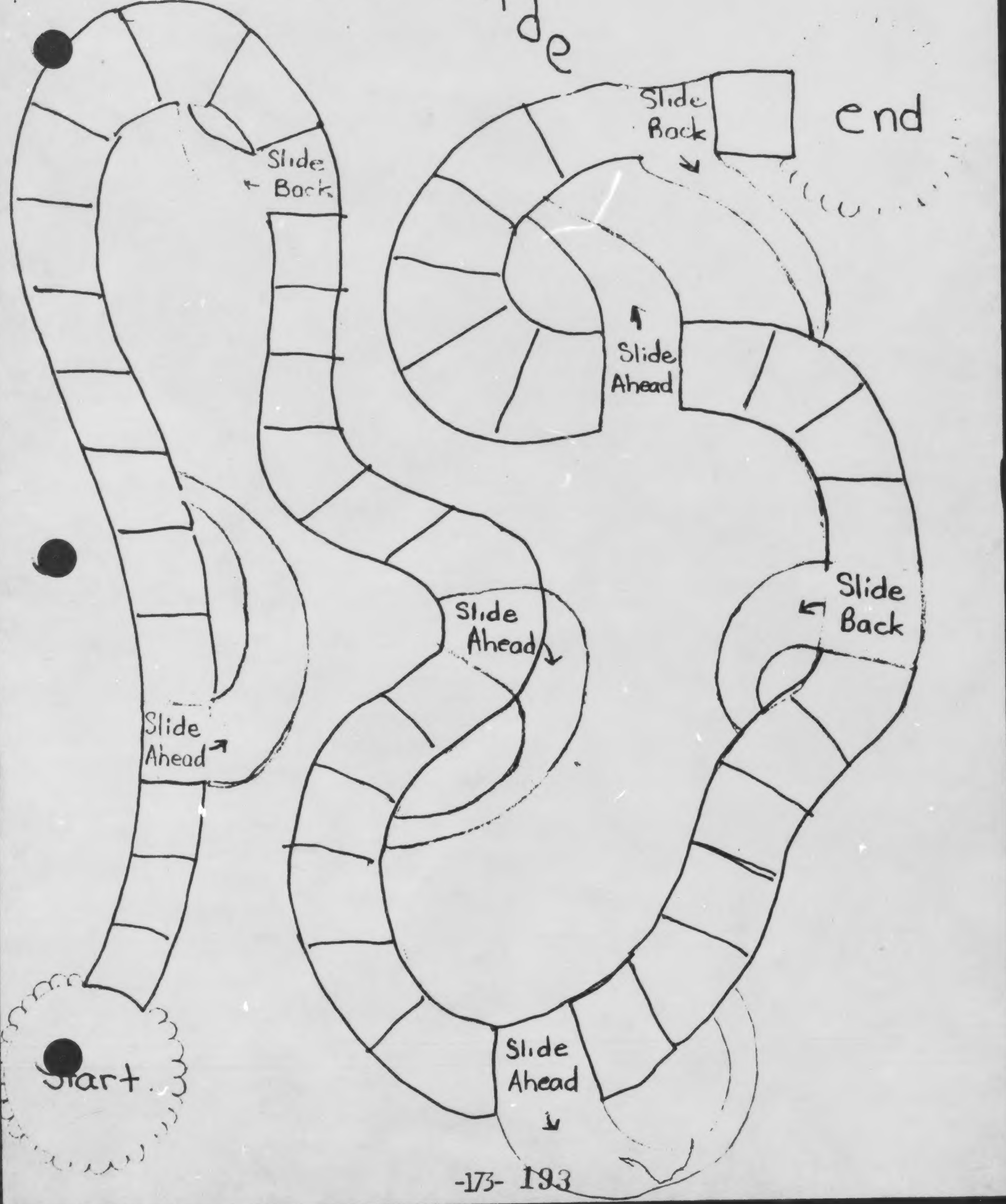
Materials: Game board and set of problem cards (as shown) a token for each player and a spinner divided into 4 equal parts numbered 1,2,3, and 4. An answer sheet for self-checking if necessary.

Procedure: Each child in turn, draws a problem card and tells what operation is used to solve the problem. If his answer is correct, he spins the spinner and moves his token forward that many spaces. If his token lands on "slide', he follows the "slide" shortcut. If a player gives a wrong answer, play continues with the next player.

The first player to reach "end" is the winner.

More problem cards can be added as new skills are developed.

Problem Slide


Slide ← Back
Slide Back
end
Slide Ahead
Slide Ahead
Slide Back
Slide Ahead
Slide Ahead
Start.

IF ONE BALL COSTS 27¢, HOW MUCH WILL 4 BALLS COST?

2

BOB CAUGHT 18 MINNOWS. JOEY CAUGHT 24 AND LARRY CAUGHT 19. HOW MANY MINNOWS DID THEY CATCH IN ALL?

3

CAROL BROUGHT 24 COOKIES TO THE MEETING. IF THERE ARE 8 GIRLS, HOW MANY COOKIES DOES EACH GIRL RECEIVE?

4

IF THERE ARE 6 BOYS ON A TEAM AND EACH BOY SCORES 16 POINTS, HOW MANY POINTS DOES THE TEAM SCORE?

6

MARY READ 135 PAGES AND JANE READ 87. HOW MANY MORE PAGES DID MARY READ?

7

BETTY BOUGHT A RIBBON 54 INCHES LONG. SHE CUT IT INTO 6 EQUAL PARTS. HOW MANY INCHES LONG WAS EACH PIECE?

JIMMY BOUGHT A GAME THAT COST 7.89. HE GAVE THE CLERK $5.00. HOW MUCH CHANGE DID HE GET BACK?

1

THREE GIRLS WERE SKIPPING ROPE. SUSAN SKIPPED 36 TIMES, KAREN 14, AND JOAN 27. HOW MANY TIMES DID THEY SKIP IN ALL?

5

PROBLEM SLIDE

PROBLEM CARDS FOR PROBLEM SLIDE

TIM EARNED 75¢ ON MONDAY, 49¢ ON TUESDAY, AND 56¢ ON FRIDAY. HOW MUCH DID TIM EARN?

9

IF DEBBY RODE HER BIKE FOR 72 MINUTES AND LINDA RODE HER BOKE FOR 59 MINUTES, HOW MUCH LONGER DID DEBBY RIDE?

10

WHEN ANN GOT UP, THE TEMPERATURE WAS 56°. AT 2:00 P.M. THE TEMPERATURE WAS 78°. HOW MUCH WARMER, WAS IT AT 2:00 P.M.?

15

SOME CHILDREN WENT ON A PICNIC. THEY HAD 18 HOT DOGS, 18 ROLLS, 9 CANS OF SODA, AND 11 CANDY BARS. HOW MANY ITEMS DID THEY HAVE ALL TOGETHER?

11

AT THE FOOD STORE, MATT BOUGHT $1.28 WORTH OF FOOD. HE GAVE THE CLERK $2.00. HOW MUCH CHANGE DID HE RECEIVE?

12

DAN EARNED $4.50 AND JEFF EARNED $5.40. HOW MUCH MORE DID JEFF EARN?

13

K-MART PAID $4,900 TO 7 EMPLOYEES FOR ONE MONTHS WORK. HOW MUCH DID EACH EMPLOYEE EARN IN ONE MONTH?

14

IF YOU HVE 128 APPLES, AND EACH OF 8 PEOPLE WILL RECEIVE THE SAME AMOUNT, HOW MANY WILL EACH RECEIVE?

16

PROBLEM CARDS FOR PROBLEM SLIDE

BILLY HAS 46 STAMPS. PETE GAVE HIM 27 MORE STAMPS. HOW MANY STAMPS DOES BILLY HAVE IN ALL?

17

MARK FOUND 26 DIFFERENT BUGS AND JIM FOUND 34. HOW MANY MORE BUGS DID JIM FIND?

18

PAT SOLD 14 PUPPET SHOW TICKETS. JANET SOLD 18 AND BETTY SOLD 17. HOW MANY TICKETS DID THE THREE GIRLS SELL?

19

IF ONE CANDY BAR COSTS 16¢, HOW MUCH WOULD 6 CANDY BARS COST?

20

DEBBY HAS 12 MOTHS IN A COLLECTION. JANE HAS THREE TIMES AS MANY. HOW MAY MOTHS DOES JANE HAVE?

21

JOHN HAD 69 BASEBALL CARDS. HE GAVE EACH OF HIS 3 FRIENDS THE SAME NUMBER OF CARDS. HOW MANY CARDS DID EACH FRIEND RECEIVE?

22

MARY HAD 50¢ AND BOUGHT A SANDWICH FOR 35¢. HOW MUCH CHANGE DID SHE RECEIVE?

23

HOW MUCH DOES 1 HOT DOG COST IF 8 HOT DOGS COST $1.20?

24

ANSWER KEY FOR PROBLEM SLIDE

1. $1.11
2. $1.08
3. 61 minnows
4. 3 cookies
5. 77 skips
6. 96 points
7. 48 more pages
8. 9 inches long
9. $1.80 Tim earned
10. 13 minutes longer
11. 56 items
12. 72¢ change
13. 90¢ more Jeff earned
14. $700.00
15. 22° warmer
16. 16 apples
17. 73 stamps
18. 8 more bugs
19. 49 tickets
20. 90¢ for candy bars
21. 36 moths
22. 23 baseball cards
23. 15¢ change
24. 15¢ for 1 hotdog

MIX AND MATCH

Objective: To provide practice solving a variety of word problems.

Activity: 2 to 6 players

Material: Two sets of cards. Cards can be copied or traced directly from included sheet and then cut. (A material such as oaktag is preferred.) An Answer Key.

Procedure:

1. Shuffle all cards together and pass out all the cards to players. (Similar to Old Maid.)
2. Each player then tries to match as many problems as he can from the cards in his hand placing the matched pairs face up on the table in front of him. (Problems are to be matched with solutions to each problem.)
3. The dealer then starts, using whatever amount of cards he has left in his hand after matching the pairs. He then selects a card from the person on his right. If he matches a problem with a solution, he may put the match on the table.
4. The next player then selects a card from the player on his right putting down each match.
5. The winner is the first student to use up all his cards.

CARDS FOR MIX AND MATCH

IF THERE ARE 2,196 PEOPLE AT THE GAME, HOW MANY PEOPLE WERE AT THE GAME TO THE NEAREST THOUSAND?

2

2,000

IF ON MONDAY THE TEMPERATURE OUTSIDE WAS 5^0 DEGREES AND ON TUESDAY IT WAS 5^0 DEGREES BELOW ZERO, WHAT WAS THE CHANGE IN TEMPERATURE BETWEEN MONDAY AND TUESDAY?

3

10

IF 5 GALLONS OF GASOLINE COST $6.00, HOW MUCH DOES 1 GALLON COST?

4

$1.20

KIM WENT TO THE STORE. SHE OUGHT A COMB FOR 39¢, A NOTEBOOK FOR $1.89, AND A PEN FOR 79¢. IF SHE GAVE THE SALESMAN A $5.00 BILL HOW MUCH CHANGE SHOULD SHE GET?

1

$1.93

MERCURY IS 36,000,000 MILES FROM THE SUN. VENUS IS ABOUT 67,000,000 MILES FROM THE SUN. HOW MUCH FURTHER IS VENUS FROM THE SUN THAN MERCURY?

6

THE EARTH IS ABOUT 93,000,000 MILES FROM THE SUN. MARS IS ABOUT 142,000,000 MILES FROM THE SUN. HOW MUCH FARTHER FROM THE SUN IS MARS THAN EARTH?

7

VENUS IS ABOUT TWICE THE SIZE OF THE PLANET PLUTO WHICH IS ABOUT 3,700 MILES ACROSS. ABOUT HOW BIG IS VENUS?

8

31,000,000

49,000,000

7,400

L'S DOG EATS 5 POUNDS OF DOG FOOD A WEEK. HOW MANY POUNDS OF DOG FOOD DOES HE EAT IN 1 YEAR?

5

260

CARDS FOR MIX AND MATCH

CARDS FOR MIX AND MATCH

A CAR TRAVELING AT 60 M.P.H. WILL TRAVEL HOW FAR IN 3 HOURS?

10

180

A JET FLIES AT 600 M.P.H. HOW LONG WILL IT TAKE TO GET TO CALIFORNIA WHICH IS 2400 MILES AWAY?

11

4

A CAR TRAVELING AT 55 M.P.H. WILL GO HOW FAR IN 6 HOURS?

12

330

IF A MAN WALKS 5 BLOCKS IN ONE HOUR, HOW MANY BLOCKS WILL HE WALK IN 6 HOURS?

9

30

RITA WORKED FROM 6:00 A.M. TO 9:00 A.M. ON MONDAY. SHE WORKED FROM NOON TO 4:00 P.M. ON TUESDAY, WEDNESDAY, THURSDAY, AND FRIDAY. WHAT WERE HER TOTAL HOURS FOR THE WEEK? 14

19 hours

AN ICE CREAM CONE COST 45¢. HOW MUCH WOULD 6 CONES COST?

15

$2.70

JO MADE 126 DONUTS TO DIVIDE EQUALLY FOR 9 FAMILIES. HOW MANY DONUTS DID EACH FAMILY GET?

208

16

14

JOHN BOUGHT A YO-YO FOR $1.29 AND A VOLLEYBALL FOR $13.59. HOW MUCH DID HE SPEND?

13

$14.88

209

CARDS FOR MIX AND MATCH

MARY READ 15 BOOKS THE FIRST WEEK OF VACATION, 9 BOOKS THE NEXT WEEK, 8 BOOKS THE FOLLOWING WEEK, AND 10 BOOKS THE LAST WEEK. HOW MANY BOOKS DID MARY READ?

18

42

SAM WENT TO THE BALL PART AT 1:00 P.M. HE CAME BACK HOME AT 5:00 P.M. HOW MANY HOURS WAS HE AT THE BALL PARK?

19

4 hours

CARLA WON 24 GOLDFISH AT A CARNIVAL. SHE HAD 6 FISH BOWLS AT HOME. IF SHE PUT AN EQUAL NUMBER OF GOLDFISH IN EACH BOWL, HOW MANY GOLDFISH WERE IN EACH BOWL?

20

4

A CAR TRAVELED 55 MILES PER HOUR E DAY FOR THREE HOURS, AND 30 MILES PER HOUR FOR 8 HOURS THE NEXT DAY. HOW MANY MILES DID THE CAR TRAVEL IN THE TWO DAYS?

17

405

THE PET STORE HAD 13 DOGS, 8 CATS 9 RABBITS AND 15 BIRDS. HOW MANY PETS WERE IN THE STORE?

22

45

AT 11:15 P.M. JAMES SET THE ALARM FOR 7:00 A.M. HOW LONG DID JAMES SLEEP?

23

7 hours 45 minutes

IN JANUARY, 30 CHILDREN WENT TO THE MOVIES. IN MARCH, JUNE, JULY AND NOVEMBER THE SAME NUMBER ATTENDED. HOW MANY CHILDREN SAW A MOVIE?

24

150

CARDS FOR MIX AND MATCH

THE CLASS SOLVED 25 PROBLEMS MONDAY 35 PROBLEMS EACH DAY FOR TWO DAYS. HOW MANY PROBLEMS DID THE CLASS SOLVE?

21

95

ANN STARTS TO SCHOOL AT 7:55 A.M. AND ARRIVES AT SCHOOL AT 8:25 A.M. HOW LONG DID IT TAKE ANN TO ARRIVE AT SCHOOL? 26	30 minutes
SHELLY SPENT $2.95 AT ONE STORE AND $3.65 AT ANOTHER STORE AND $9.87 AT THE THIRD STORE. HOW MUCH MONEY DID SHE SPEND? 27	$16.47
BABY JOHN STARTED A NAP AT 1:15 P.M. AND WOKE UP AT 3:25 P.M. HOW LONG DID BABY JOHN SLEEP? 28	2 hours 10 minutes
MR. SMITH DRIVES HIS CAR 65 MILES THE FIRST DAY AND THE SAME AMOUNT FOR THE NEXT FIVE DAYS, HOW MANY MILES DID HE DRIVE? 25	390

CARDS FOR MIX AND MATCH

A HAMBURGER COST 55¢ AT THE SNACK BAR. HOW MUCH WOULD EIGHT HAMBURGERS COST? 30	$4.40
IN A FLOWER ARRANGEMENT THERE WERE 5 YELLOW DAISIES, 7 BLUE DAISIES, AND 11 ROSES. HOW MANY FLOWERS IN ALL? 31	23
PETE'S FAMILY LEFT FOR NORTH CAROLINA AT 6:00 P.M. THEY ARRIVED AT 7:00 A.M. THE NEXT MORNING. HOW MANY HOURS DID THE TRIP TAKE? 32	13 hours
MARK HAD TO GO TO SCHOOL FOR 179 YS. 87 DAYS HAVE GONE BY. HOW MANY DAYS ARE LEFT? 29	92

ANSWER KEY FOR
MIX AND MATCH

1. $1.93
2. 2,000 people
3. 10°
4. $1.20
5. 260 pounds
6. 31,000,000 miles
7. 49,000,000 miles
8. 7,400 miles
9. 30 blocks
10. 180 miles
11. 4 hours
12. 330 miles
13. $14.88
14. 19 hours
15. $2.70
16. 14 donuts
17. 405 miles
18. 42 books
19. 4 hours
20. 4 gold fish
21. 95 problems
22. 45 pets
23. 7 hours 45 minutes
24. 150 children
25. 390 miles
26. 30 minutes
27. $16.47
28. 2 hours 10 minutes
29. 92 days
30. $4.40
31. 23 flowers
32. 13 hours

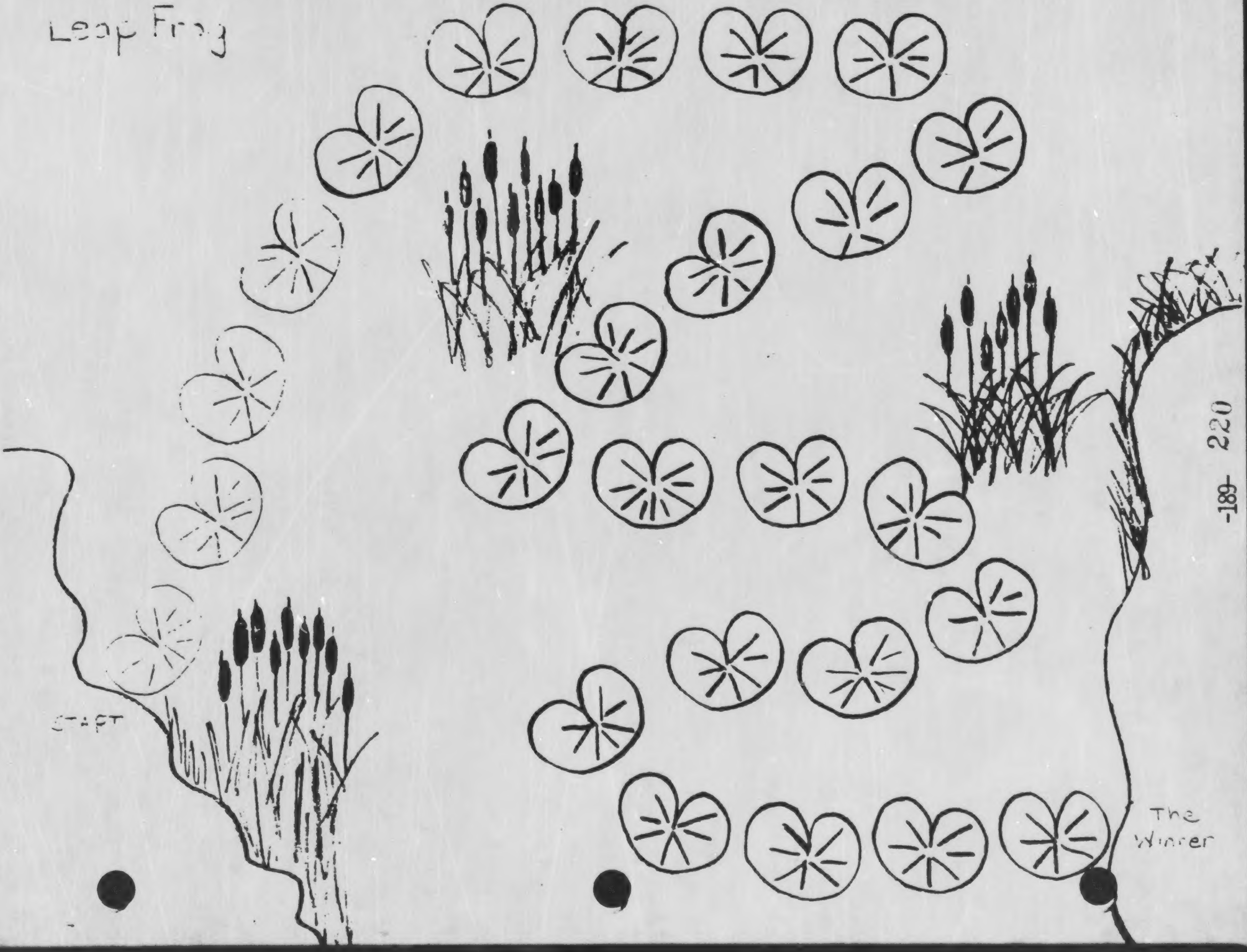
LEAP FROG

OBJECTIVE: To provide practice with the different terms used in addition and subtraction.

ACTIVITY: For 2 players

MATERIALS:
Frog Markers
Game board with spinner 1,2,3,4
Problem-solving cards
Scrap paper

PROCEDURE: Each player in turn draws a card, reads the problem and solves it using their scrap paper if necessary. If you answer correctly spin to see how many lily pads your frog can jump across the pond. The winner is the first one to get across the pond.


Leap Frog
START
The Winner

LEAP FROG

IF THERE ARE 21 FROGS IN ONE POND AND YOU TAKE 9 AWAY, HOW MANY FROGS WOULD BE LEFT

1

ROBBY FROG ATE 67 MINNOWS AND 39 SPIDERS IN ONE WEEK. WHAT IS THE SUM OF EVERYTHING HE ATE?

2

IF TOM FROG JUMPED 18 FEET LESS 4 FEET, HOW MANY FEET DID HE JUMP?

3

SUSIE FROG WEIGHS 32 OUNCES AND JACKIE FROG WEIGHS 28 OUNCES. WHAT IS THE DIFFERENCE IN THEIR WEIGHT?

4

IF THERE ARE 24 LILY PADS AND 17 FROGS WITH ONE FROG SITTING ON EACH LILY PAD. HOW MANY LILY PADS ARE LEFT WITH NO FROG?

7

THE AFRICAN FROG CAN JUMP 14 FEET THE CRICKET FROG 3 FEET, AND THE BULLFROG 4 FEET. HOW MANY FEET IN ALL CAN THEY JUMP?

8

IF LUCY FROG CAN JUMP OVER 6 LILY PADS AND SUSIE FROG OVER 9 LILY PADS, WHAT IS THE SUM OF THE NUMBER OF LILY PADS THEY CAN JUMP OVER?

9

IF FRANKIE FROG CAUGHT 18 BUGS AND TOM FROG CAUGHT 13 BUGS. WHAT IS THE TOTAL NUMBER OF BUGS THEY CAUGHT?

10

IF ROBBY FROG ATE 22 SPIDERS MINUS THE 5 THAT GOT AWAY, HOW MANY SPIDERS DID HE EAT?

11

IF BABY FROG SLEPT 12 HOURS AT NIGHT PLUS 4 MORE HOUS AT NAPTIME, HOW MANY HOURS DID HE SLEEP?

12

THE TINY CRICKET FROG IS ABOUT TWO CENTIMETERS IN BODY LENGTH WHILE THE BULLFROG IS ABOUT 18 CENTIMETERS. WHAT IS THE DIFFERENCE IN THEIR BODY LENGTHS?

5

IF EVERY FROG HAS TWO FRONT LEGS AND TWO HIND LEGS. HOW MANY LEGS ALTOGETHER WOULD THREE FROGS HAVE?

6

LITTLE BABY FROG COULD ONLY JUMP OVER 2 LILY PADS AT A TIME, WHILE HER SISTER COULD JUMP OVER 9 LILY PADS. HOW MANY MORE LILY PADS COULD SISTER FROG JUMP OVER THAN LITTLE BABY FROG?

15

26 FROGS WERE SITTING ON ONE SIDE OF THE POND CATCHING BUGS PLUS 8 MORE FROGS WERE SLEEPING. HOW MANY FROGS WERE THERE?

17

IF THERE ARE 43 MINNOWS SWIMMING IN THE POND AND TOMMY FROG ATE 17 OF THEM, HOW MANY MINNOWS ARE LEFT?

19

MICHAEL CAUGHT 5 FROGS, JOANNE CAUGHT 9 AND TOMMY CAUGHT 11. HOW MANY FROGS DID THEY CATCH IN ALL?

16

THE AVERAGE AMERICAN FROG JUMPS AOBUT 3 FEET AT A TIME, BUT A BIG BULLFROG CAN JUMP 6 FEET. WHAT IS THE DEFFERENCE BETWEEN HOW FAR THEY CAN JUMP?

18

FRANKIE WEIGHS 14 OUNCES, TOM WEIGHS 28 OUNCES, AND ROBBY WEIGHS 17 OUNCES. TOGETHER HOW MUCH DO THEY WEIGH?

20

T[illegible]M FROG JUMPED 12 FEET AND MARY FROG JUMPED 17 FEET. HOW MANY FEET DID THEY JUMP ALTOGETHER?

13

LEAP FROG

SUSIE FROG ATE 13 SPIDERS WHILE JACKIE FROG ATE 9 SPIDERS. WHAT WAS THE TOTAL NUMBER OF SPIDERS THEY ATE?

14

ANSWER KEY FOR LEAP FROG

1. 12 frogs
2. 106 insects
3. 14 feet
4. 4 ounces
5. 16 centimeters
6. 12 legs
7. 7 lily pads
8. 21 feet
9. 15 lily pads
10. 31 bugs
11. 17 spiders
12. 16 hours
13. 29 feet
14. 22 spiders
15. 7 lily pads
16. 25 frogs
17. 34 frogs
18. 3 feet
19. 26 minnows
20. 59 ounces

ESTO

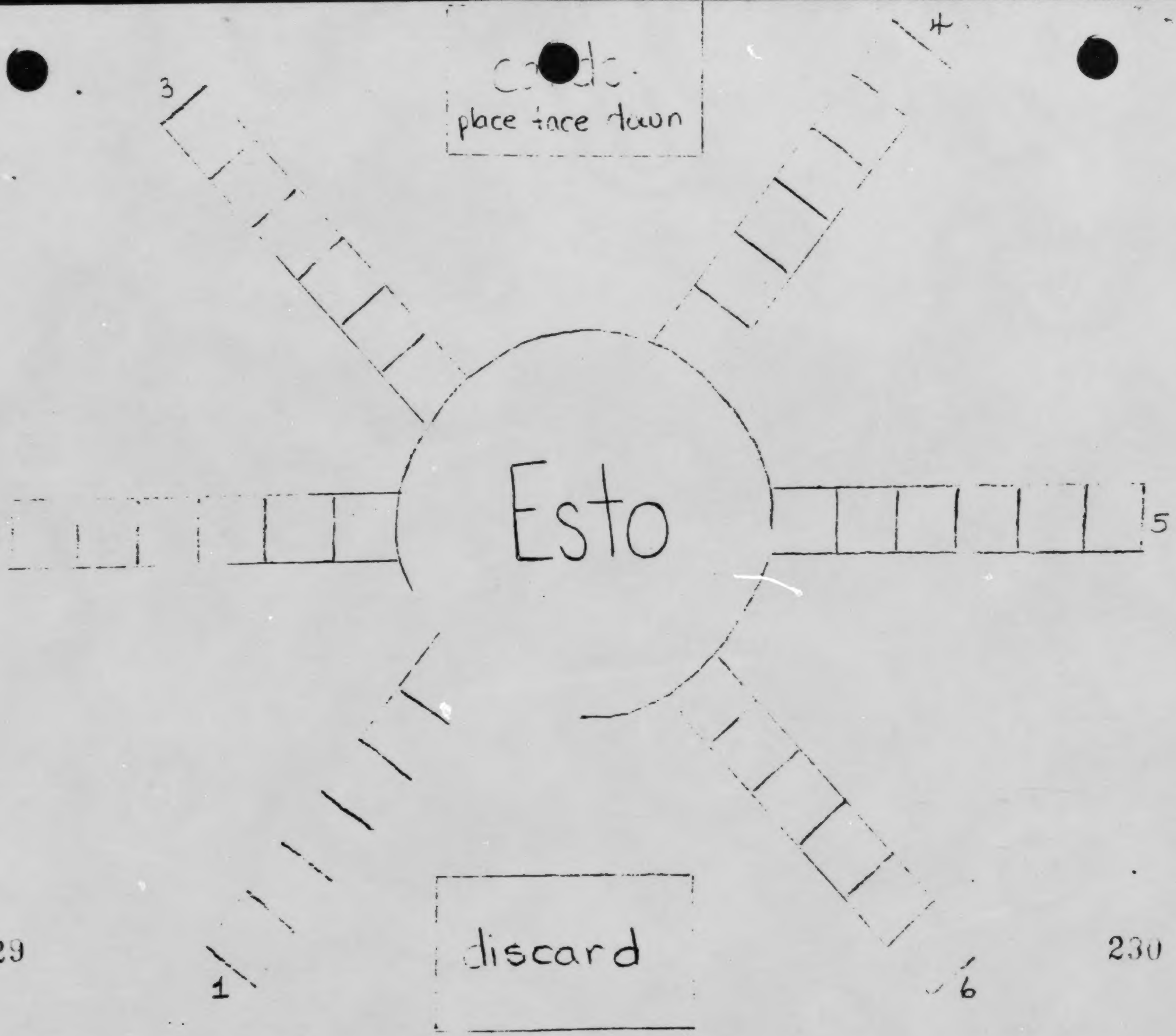
Objective: To provide practice with estimating in problem solving.

Activity: For 2 to 6 players

Materials:
Gameboard (see diagram)
Game cards with word problems (see diagram) numbered for use with Answer Key
Answer Key
Markers

Procedure:

1. Shuffle cards and place on game board. Each child puts his marker at the end of one path.
2. First child selects a card, figures out the problem and states the answer to the nearest ten (another child checks the key). If answer is correct, he moves into the first box. If incorrect, he moves back one box (if already on the gameboard). For each answer, marker is moved one box.
3. Play continues in the same manner, each child taking turns in order.
4. The first person to reach the center of the gameboard is the winner.


cards
place face down
Esto
discard

THERE WERE 481 CHAIRS. THE CHAIRS RE GOING TO BE PLACED IN 6 ROWS. ABOUT HOW MANY CHAIRS WOULD BE IN EACH ROW?

1

JOHN CAUGHT THREE FISH. ONE FISH WAS 11 INCHES LONG. ONE WAS 16 INCHES LONG, AND ONE WAS 9 INCHES LONG. ABOUT HOW LONG WOULD ALL 3 FISH BE IF THEY WERE PUT IN A STRAIGHT LINE?

2

THERE WERE 142 COOKIES. THE COOKIES WERE GOING TO BE PLACED IN 7 BAGS. ABOUT HOW MANY COOKIES WOULD BE IN EACH BAG?

3

THE GREEN'S USE 1 GALLON OF MILK IN A WEEK. THE JONES USED 8 GALLONS. THE RICES' USED 5 GALLONS. ABOUT HOW MANY GALLONS OF MILK WERE USED?

4

THERE WERE 87 M & M'S TO BE SHARED BY 3 CHILDREN. ABOUT HOW MANY M & M;S WOULD EACH CHILD GET?

5

ROBERT BICYCLED 8 MILES TO THE BALLPARK, AND 5 MILES TO THE SWIMMING POOL. ABOUT HOW MANY MILES DID HE BICYCLE?

6

PETE JOGGED 11 MILES EVERY DAY. ABOUT HOW MANY MILES WOULD HE JOG IN 5 DAYS?

7

A DOG TRAVELED 101 MILES. A BIRD FLEW 398 MILES. ABOUT HOW MANY MORE MILES DID THE BIRD FLY?

8

THE PRICE OF A NEW DISHWASHER IS $569. THE PRICE OF A NEW REFRIGERATOR IS $799. THE PRICE OF A NEW MICROWAVE OVEN IS $408. ABOUT HOW MUCH MONEY WOULD THE THREE APPLIANCES COST?

11

FOUR GIRLS HAD A RACE. MARY RAN 9 FEET, JAN RAN 12 FEET, HELEN RAN 14 FEET, AND JERRY RAN 19 FEET. THE FOUR GIRLS RAN ABOUT HOW MANY FEET?

12

THERE WERE 12 APPLES IN A BASKET. EACH WEIGHED 3 POUNDS. ABOUT HOW MUCH DID THE 12 APPLES WEIGH?

13

THE MILKMAN LEFT 6 QUARTS OF MILK ON MONDAY AT JANE'S HOUSE. HE LEFT 5 QUARTS ON TUESDAY, WEDNESDAY, THURSDAY, AND FRIDAY. ABOUT HOW MUCH MILK DID JANE'S FAMILY RECEIVE DURING THE WEEK?

14

JOE WEIGHED 103 POUNDS, JACK WEIGHED 99 POUNDS. ABOUT WHAT WAS THE TOTAL WEIGHT OF THE TWO BOYS?

15

TOM IS 4 FEET TALL, TIM IS 5 FEET TALL, WHILE THE TWINS TED AND DOUG WERE EACH 6 FEET TALL. ABOUT HOW MANY FEET WERE THE FOUR BOYS ALTOGETHER?

16

241 PEOPLE WERE AT THE STORE ON [illegible]TURDAY. 137 WERE THERE ON SUNDAY. ABOUT HOW MANY WENT TO THE STORE THAT WEEKEND?

9

THE CLASS WAS DIVIDED INTO THREE TEAMS FOR A GAME. THE FIRST TEAM WON 378 POINTS. THE SECOND TEAM WON 228 POINTS, WHILE THE THIRD TEAM WON 333 POINTS. ABOUT WHAT WAS THE TOTAL POINTS WON BY THE THREE TEAMS?

10

Bob ran 19 miles and Sarah ran 14 miles. About how many miles did they run together?

19

A Rhino weighed 631 pounds and a squirrel weighed 12 pounds. About how many more pounds did the Rhino weigh?

20

The Brown's drove 321 miles and the Smith's drove 128 miles. About how many more miles did the Brown's travel?

21

Three women were baking cakes for a bake sale. One woman used 3 cups of flour, another used 5 cups of flour, and the last woman used 4 cups of flour. About how much flour did all 3 women use?

22

The temperature in Miami, Florida was 93° and the temperature in Suracuse, New York was 78°. About how much warmer was it in Syracuse?

23

Movie A lasted from 2:00 to 3:30. Movie B lasted from 7:30 to 10:30. Movie C lasted from 12:00 to 4:00 and Movie D lasted from 9:00 to 1:00. About how many hours of TV time were the movies?

24

There were 33 adults and 59 child-[illegible]n at the park swimming pool. About how many people were there?

17

Sue drove for 9 hours and Bill drove for 13 hours. About how many hours did they drive together?

18

ANSWER KEY FOR ESTO

1. 80 chairs
2. 40 inches
3. 20 cookies
4. 10 gallons
5. 20 M & M's
6. 10 miles
7. 60 miles
8. 300 miles
9. 380 people
10. 940 points
11. $1,770
12. 50 feet
13. 40 pounds
14. 30 quarts
15. 200 pounds
16. 20 feet
17. 90 people
18. 20 hours
19. 20 miles
20. 620 pounds
21. 190 miles
22. 10 cups
23. 10°
24. 10 hours

PROBLEM LOTTO

Objective:	To provide practice in recognizing the four basic operations needed in problem solving.
Activity:	For 2 to 6 children
Materials:	A deck of problem cards with varied operations; a tally sheet for keeping score and 5 cubes marked (x, ,+,-,x,); (x, ,+,-, ,+); (x, ,+,-,+,-) (x, ,+,-,-,x); (x, ,+,-,x,+)
Procedure:	Each player in turn draws a problem card from the deck, reads it aloud and tells what operation is needed to solve the rpoblem. If the operation is correct, the player rolls the five cubes. The number of corresponding symbols for that problem card, showing on the cubes is that player's score and is recorded under his name on the tally sheet. Play goes on to the next player.
NOTE:	Problem cards from other games may be used for variety.

Each bakery bag contains 12 cookies. How many cookies would be in 5 bags?

Marge planted 6 seeds and Ann planted 4 times as many. How many seeds did Ann plant?

Team A scored 329 points and Team B scored 425 points. How many more points did Team B score?

Linda picked 28 apples and Alice picked 39. How many apples did they pick all together?

Ann walked 9 blocks to the park and tehn 3 more blocks to the store. How many blocks did she walk to get to the store?

Gary found 62 grasshoppers and Bob found 43 crickets. How many more insects did Gary find?

Three girls weighed a total of 330 pounds. If each girl weighed the same number of pounds, how much did each girl weigh?

If Joe had 48 baseball cards and gave the same number of cards to his friends, how many cards would each friend get?

MAR[illegible]AYS 3 GAMES OF TENNIS EVERYDAY. HOW MANY GAMES WOULD SHE PLAY IN ONE WEEK?

JOHN BOUGHT A BASEBALL FOR $3.28 JOE BOUGHT A BASEBALL FOR $2.20. HOW MUCH MORE DID JOHN PAY FOR HIS BASEBALL?

THE BROWNS DROVE 73 MILES ON MONDAY AND 51 MILES ON TUESDAY. HOW MANY MILES DID THEY DRIVE IN THE TWO DAYS?

HOW M[illegible] MORE DID BILL EARN THAN JOHN IF JOHN MADE $29 SELLING CARDS AND BILL EARNED $11?

AT THE PEANUT FACTORY THERE WERE 21,000 PEANUTS LEFT OVER AFTER THE MACHINE BROKE. IF THEY PUT THEM INTO JARS THAT HOLD 700 PEANUTS EACH, HOW MANY JARS DO THEY NEED?

IF 50 PEOPLE SOLD 10 RAFFLE TICKETS EACH AT $2.00 EACH, HOW MANY TICKETS DID THEY SELL?

GEORGE HAS 45 MARBLES. HE WANTS TO PUT AN EQUAL NUMBER OF MARBLES [illegible] 5 BAGS. HOW MANY MARBLES WOULD BE IN EACH BAG?

HOW MUCH MONEY DID JULIE MAKE AT HER LEMONADE STAND IF SHE SOLD 40 GLASSES AT 5¢ A GLASS?

PS-A-S-M

$PENDING $PREE

Objective: To provide practice in addition, subtraction and simple multiplication with word problems.

Activity: For 2 to 4 players

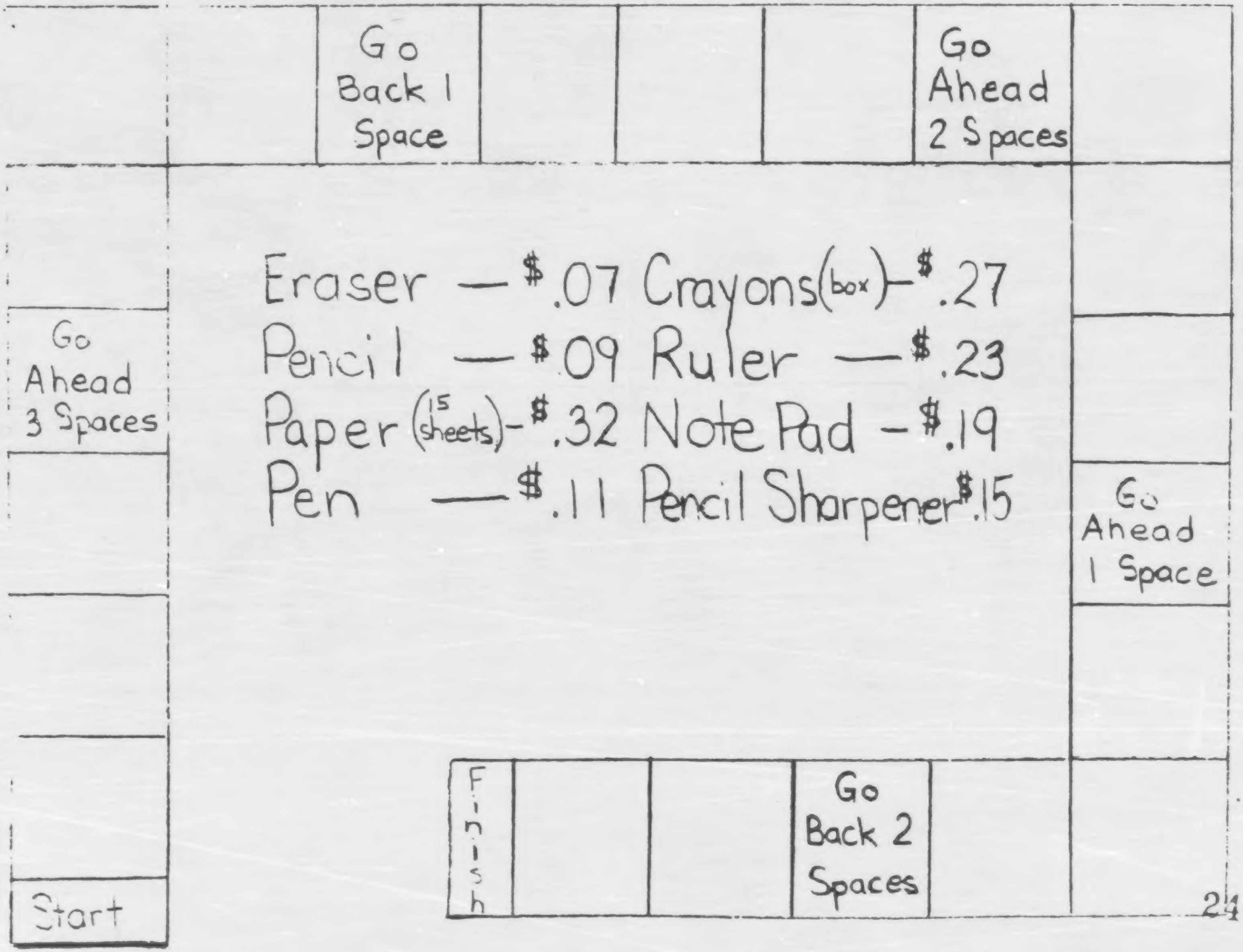
Materials:
Game board
2 dice marked 1,2,3, and 1,2,3
Problem-solving cards
Scrap paper
Answer Key

Procedure: Each player in turn draws a card, reads the problem and tries to solve it using scrap paper if necessary. If he solves it correctly he rolls the dice and moves ahead the total number of spaces of the two dice. The winner is the person who crosses the finish line first.

ANSWER KEY FOR
$SHOPPING $PREE

1. 32¢
2. 64¢
3. 18¢
4. 57¢
5. 34¢
6. $1.08
7. 50¢
8. 35¢
9. 23¢
10. 69¢
11. 18¢
12. 33¢
13. 6¢
14. 24¢
15. 16¢
16. 36¢
17. Notepad
18. 4¢
19. Paper (15 sheets)
20. 4¢
21. Crayons
22. 16¢
23. 4¢
24. 40¢

$pending $pree


Go Back 1 Space
Go Ahead 2 Spaces
Go Ahead 3 Spaces
Go Ahead 1 Space
Go Back 2 Spaces
Finish
Start

Eraser	$.07	Crayons (box)	$.27
Pencil	$.09	Ruler	$.23
Paper (15 sheets)	$.32	Note Pad	$.19
Pen	$.11	Pencil Sharpener	$.15

IF YOU BOUGHT A PENCIL AND A RULER, HOW MUCH WOULD THEY COST?

1

IF YOU BOUGHT 30 SHEETS OF PAPER, HOW MUCH WOULD IT COST?.

2

IF YOU BOUGHT AN ERASER AND PEN, HOW MUCH WOULD THEY COST?

3

IF YOU BOUGHT 3 NOTEPADS, HOW MUCH WOULD THEY COST?

4

IF YOU BOUGHT A NOTEPAD AND PENCIL SHARPENER, HOW MUCH WOULD THEY COST?

5

IF YOU BOUGHT 4 BOXES OF CRAYONS, HOW MUCH WOULD THEY COST?

6

IF YOU BOUGHT A BOX OF CRAYONS AND A RULER, HOW MUCH WOULD THEY COST?

7

IF YOU BOUGHT 5 ERASERS, HOW MUCH WOULD THEY COST?

8

IF YOU HAD 37¢ AND BOUGHT A NOTEPAD HOW MUCH CHANGE WOULD YOU GET?

11

HOW MUCH WOULD ONE PEN, ONE PENCIL SHARPENER, AND ONE ERASER COST?

12

IF YOU HAD A QUARTER AND YOU BOUGHT A NOTEPAD, HOW MUCH WOULD YOUR CHANGE BE?

13

IF YOU HAD 56¢ AND BOUGHT 15 SHEETS OF PAPER, HOW MUCH CHANGE WOULD YOU GET?

14

IF YOU HAD A QUARTER AND YOU BOUGHT A PENCIL, HOW MUCH WOULD YOUR CHANGE BE?

15

IF YOU HAD 63¢ AND BOUGHT A BOX OF CRAYONS, HOW MUCH CHANGE WOULD YOU GET?

16

IF YOU HAD 41¢ AND BOUGHT TWO NCILS, HOW MUCH CHANGE WOULD YOU GET?

9

HOW MUCH WOULD A RULER, NOTEPAD, AND A BOX OF CRAYONS COST?

10

$HOPPING $PREE

IF YOU HAD A DIME, NICKEL, AND FOUR PENNIES, WHAT ONE ITEM COULD YOU BUY?

17

HOW MUCH MORE IS A PENCIL SHARPENER THAN A PEN?

18

IF YOU HAD ONE QUARTER, ONE NICKEL AND TWO PENNIES, WHAT ONE ITEM COULD YOU BUY?

19

HOW MUCH MORE IS A BOX OF CRAYONS THAN A RULER?

20

IF YOU HAD TWO DIMES, ONE NICKEL AND TWO PENNIES, WHAT ONE ITEM COULD YOU BUY?

21

HOW MUCH MORE IS A RULER THAN AN ERASER?

22

HOW MUCH MORE IS A RULER THAN A NOTEPAD?

23

HOW MUCH WOULD TWO PENS, AND TWO PENCILS COST?

24

FRACTION CONCEPT

(CODED FC)

FRACTION RUMMY

Objective: To provide practice in recognizing common fractions

Activity: For 2 to 4 players

Materials: Deck of fraction rummy cards (72) (included)

Procedure:

1. Shuffle and deal 6 cards to each player. Place remaining cards face down in center turning the top card over to make a discard pile.
2. The first player picks a card from center and tries to make a set. (A set includes 3 cards representing the same fractional number). He then must discard a card.
3. The person to the right is the next player and play continues to the right.
4. A card may be picked up from the top of the discard pile instead of center.
5. In order to win, the player must have two sets of fractions.

$\frac{1}{16}$

$\frac{3}{16}$

$\frac{1}{10}$

$\frac{3}{10}$

$\frac{1}{2}$

255

$\frac{1}{3}$

$\frac{2}{3}$

$\frac{1}{4}$

256

$\frac{1}{16}$

$\frac{3}{16}$

$\frac{1}{10}$

$\frac{3}{10}$

$\frac{1}{2}$

257

$\frac{1}{3}$

$\frac{2}{3}$

$\frac{1}{4}$

258

$\frac{2}{4}$

$\frac{1}{8}$

$\frac{3}{8}$

$\frac{3}{4}$

$\frac{5}{8}$

259

$\frac{2}{6}$

$\frac{4}{6}$

$\frac{1}{5}$

260

$\frac{2}{4}$

$\frac{1}{8}$

$\frac{3}{8}$

$\frac{3}{4}$

$\frac{5}{8}$

261

$\frac{2}{6}$

$\frac{4}{6}$

$\frac{1}{5}$

262

$$\frac{2}{5}$$

$$\frac{3}{5}$$

one-
sixteenth

three-
sixteenths

one-
tenth

three-
tenths

one-
half

one-
third

two-
thirds

one-
fourth

two-
fourths

one-
eighth

three-
eighths

three-
fourths

five-
eighths

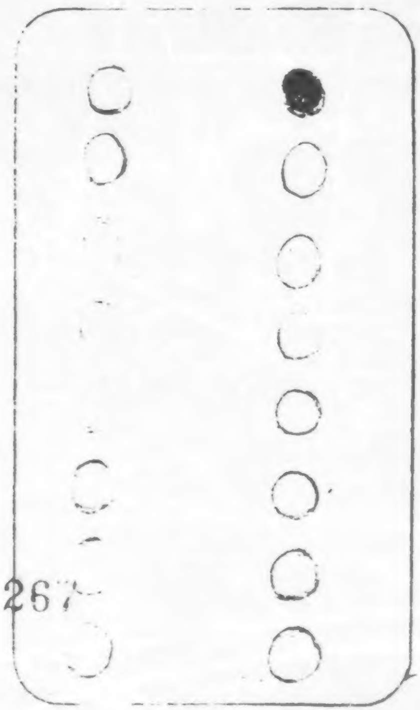
two-
sixths

four-sixths

one-fifth

two-fifths

three-fifths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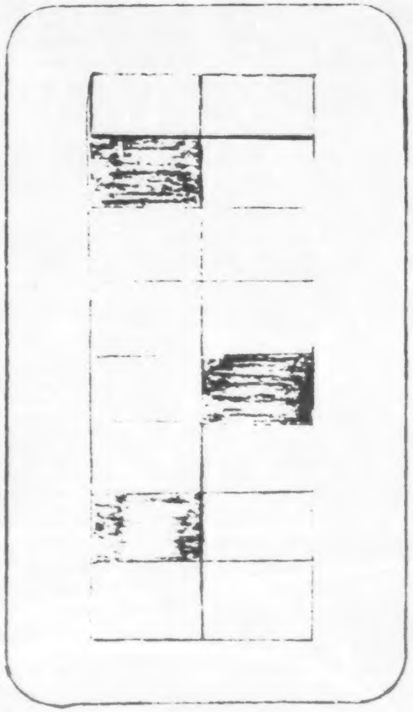

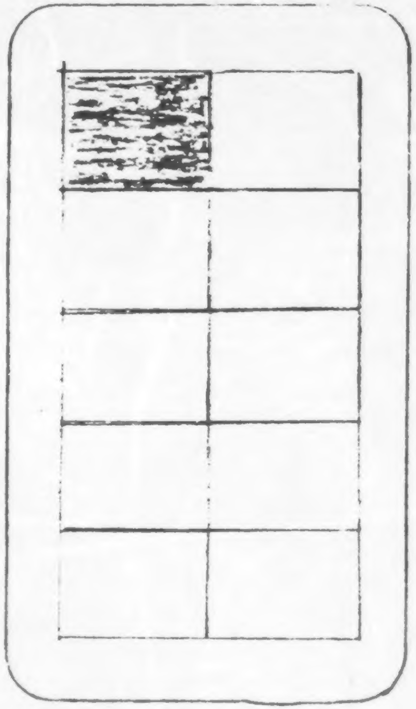

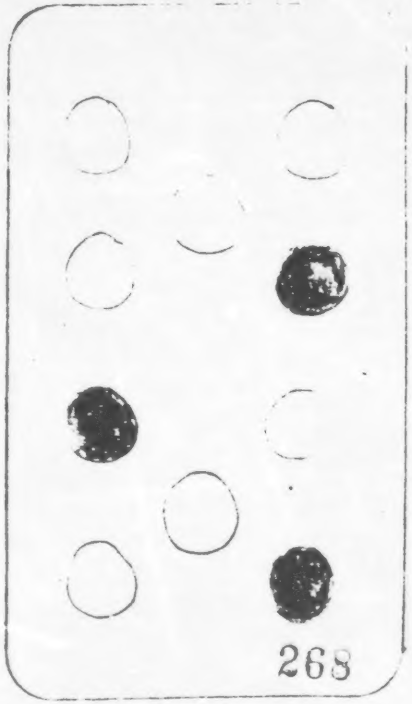
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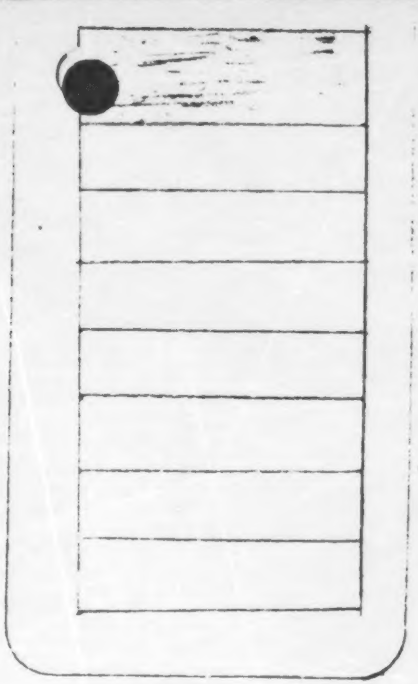

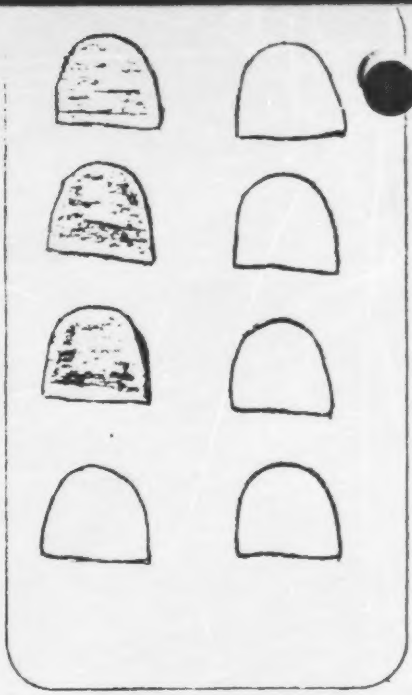

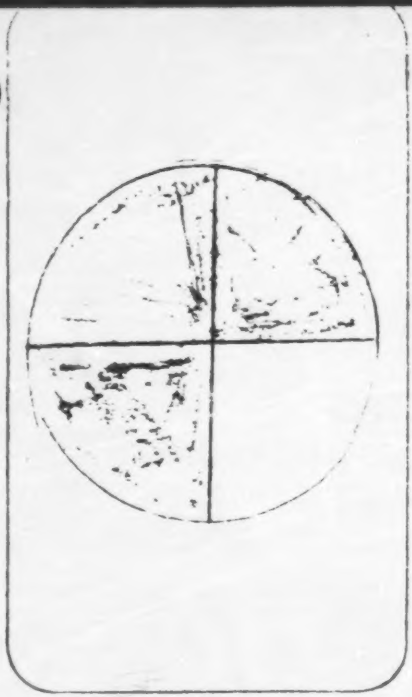

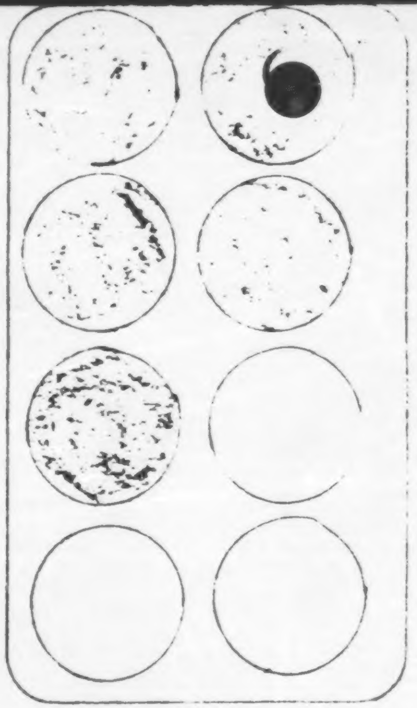

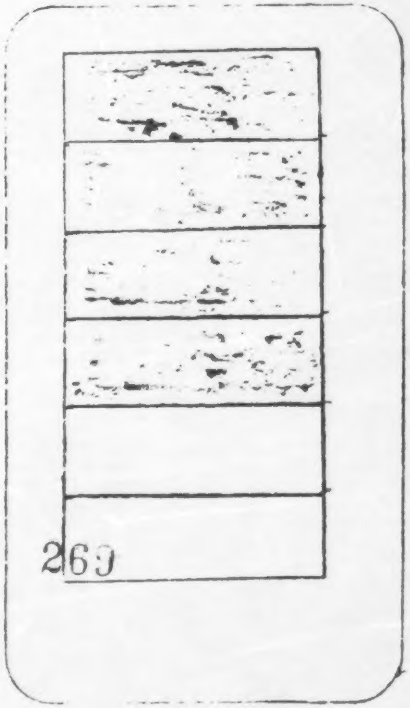

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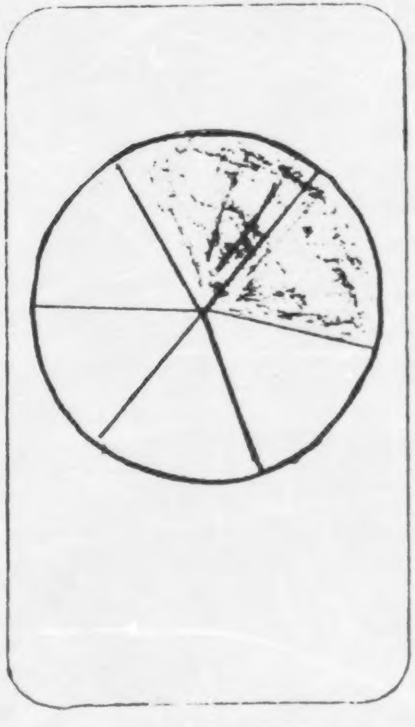
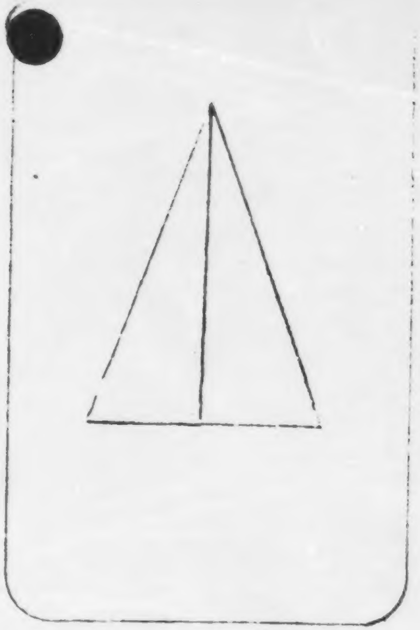
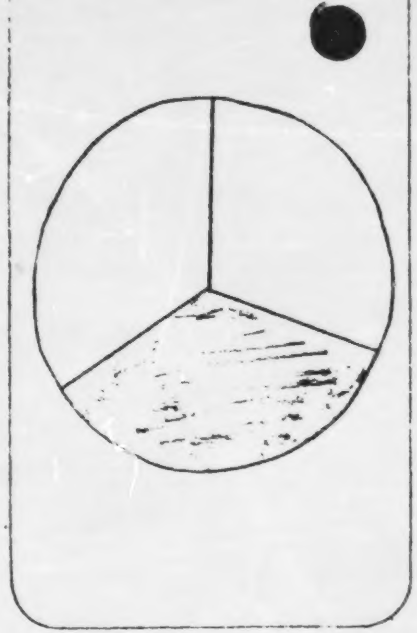


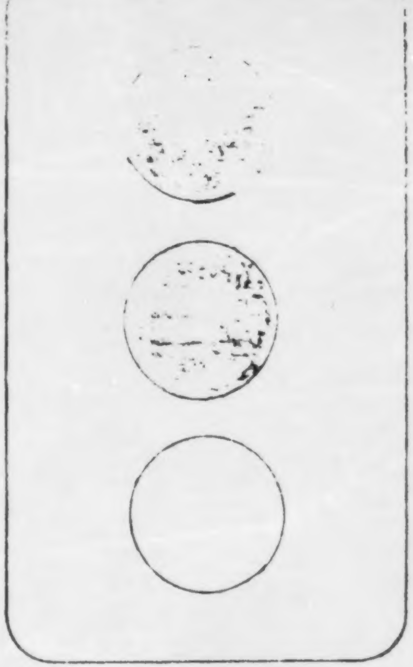
$$\frac{2}{5}$$

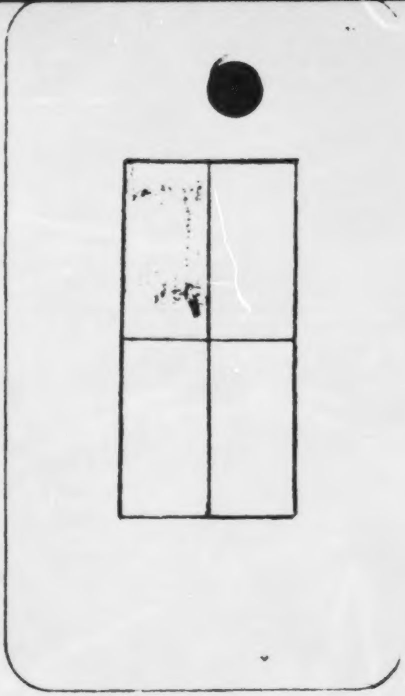
$$\frac{3}{5}$$

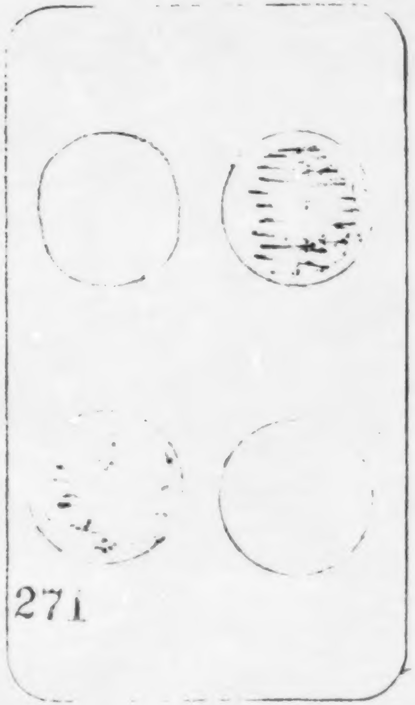
270







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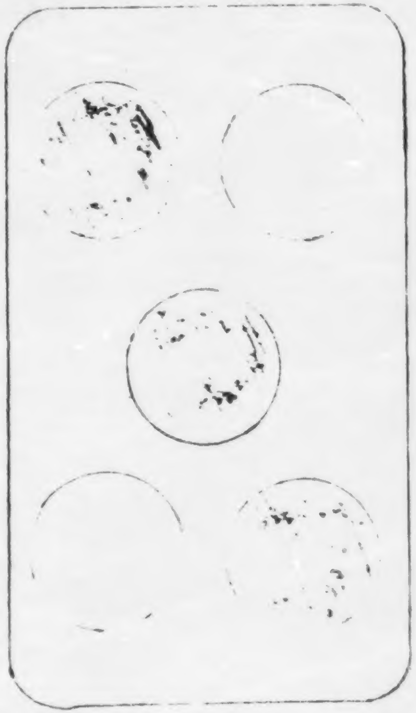

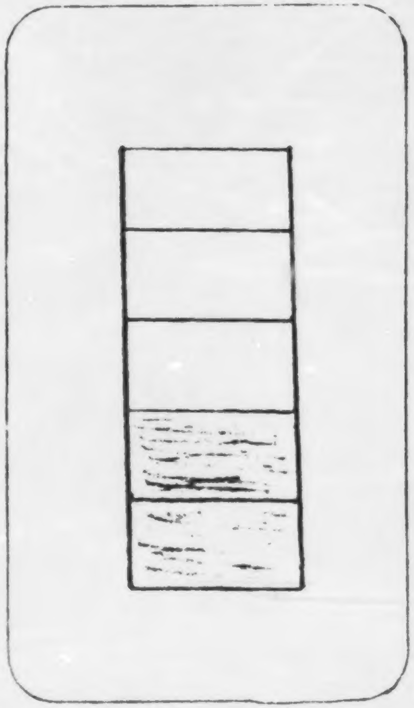

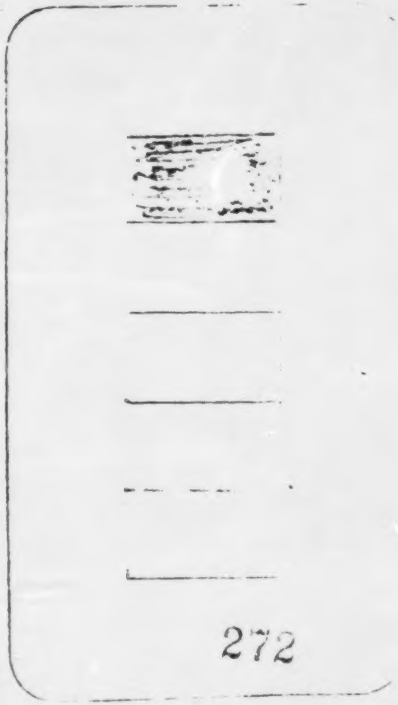
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FRACTO

Objective: To give practice in reading fractions and recognizing corresponding shaded areas.

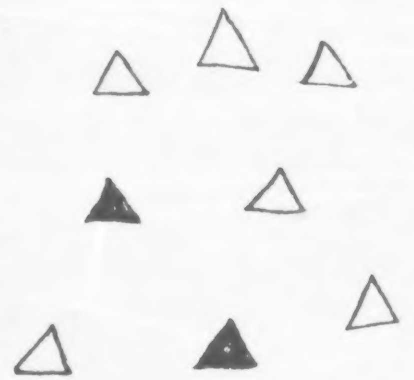
Activity: Small group or entire class

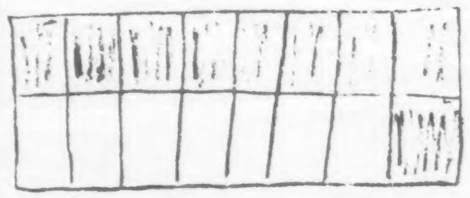
Materials: Deck of fraction cards (suggested below), Fracto card and markers for each player and a master sheet and markers for the caller.

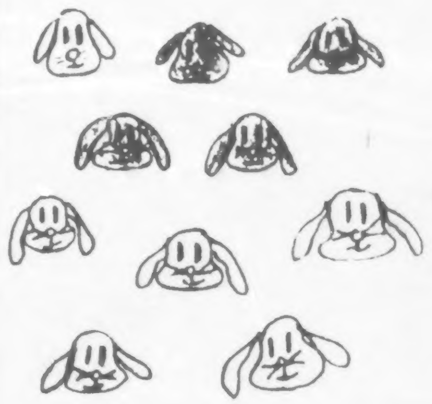
Cards should correspond with the master sheet.

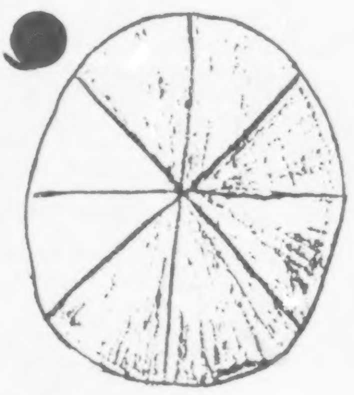
Procedure: (Like Bingo). The caller picks a fraction card, calls the fraction and puts a marker on that fraction on the master sheet. Each player having the same fraction picture on his "Fracti" card okaces a narjer ib tgat sqyare, The first player to cover 3 in a row, column or diagonally calls out "Fracto". The caller checks the winner's card against the master sheet, and if it is correct the winnder becomes the caller for the next game.

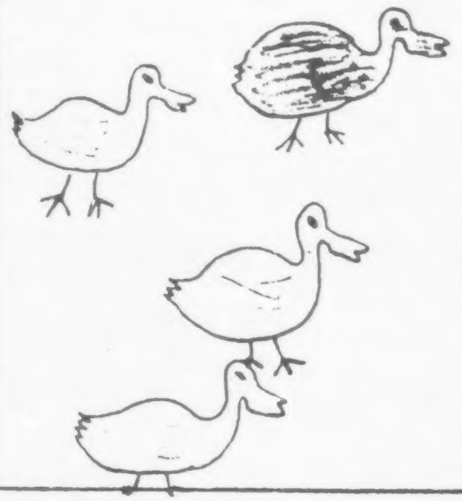
FRACTIO

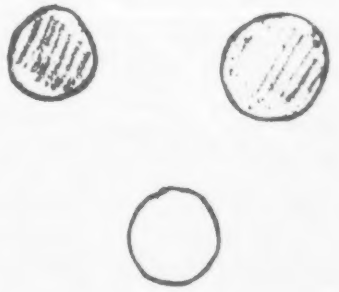


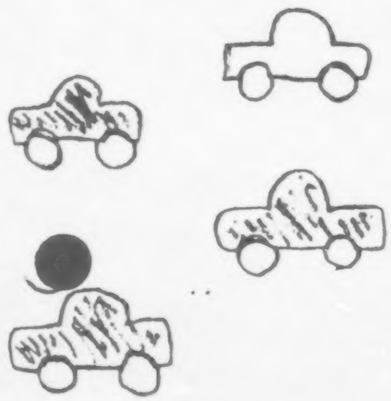


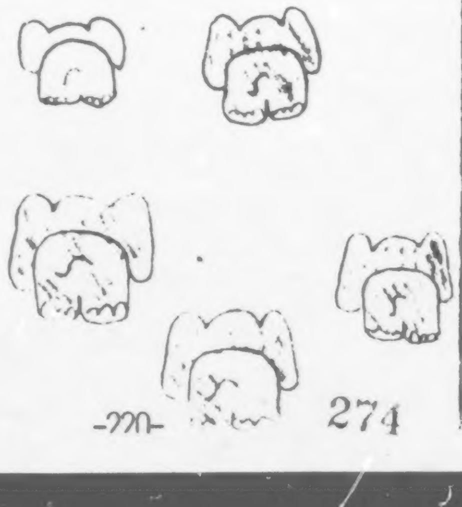


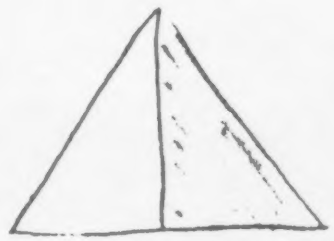












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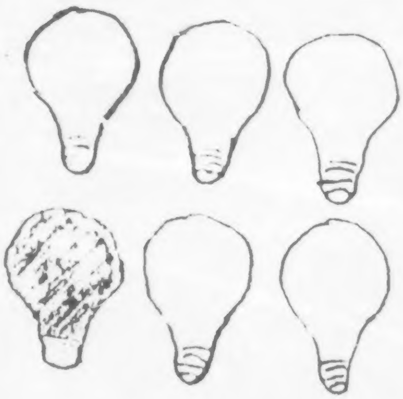

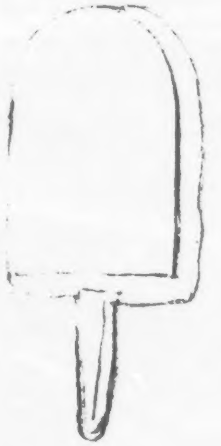

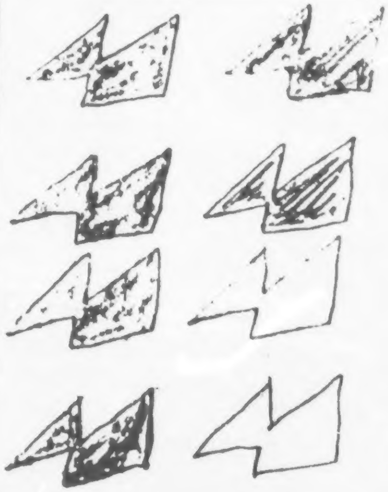

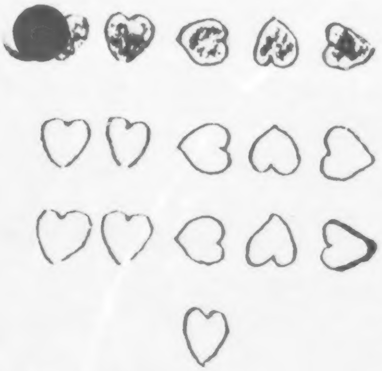

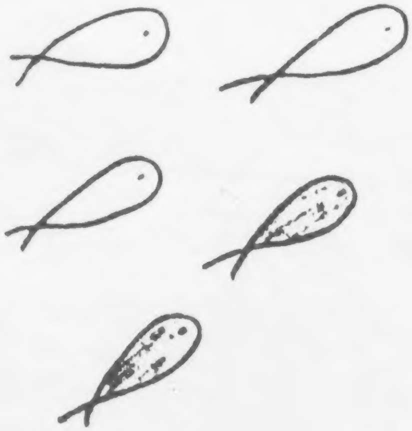

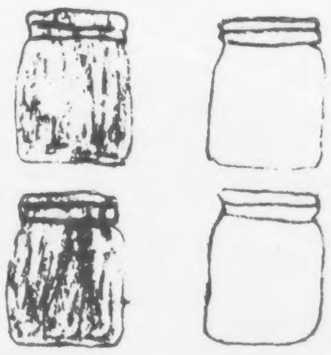

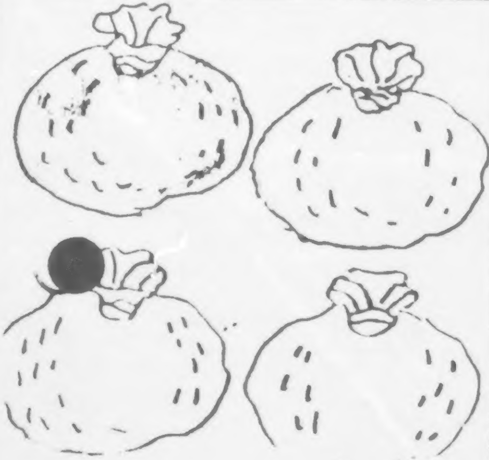

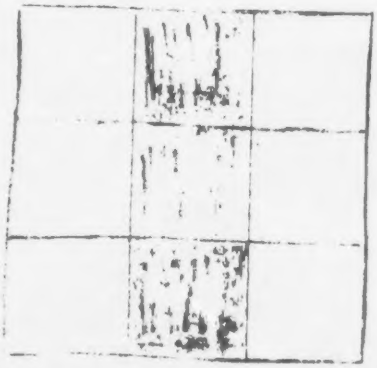

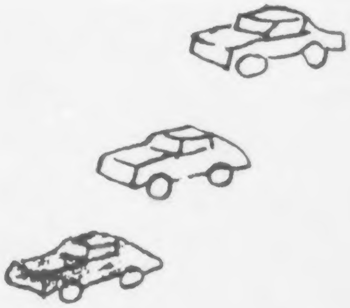

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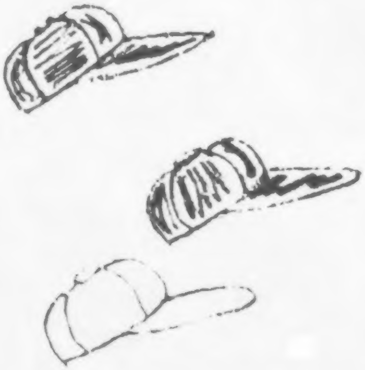

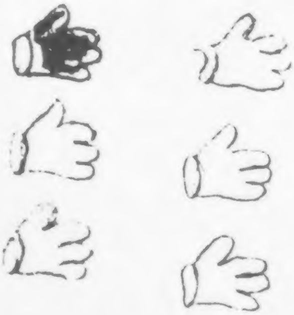

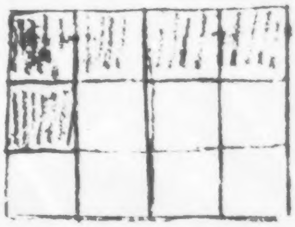

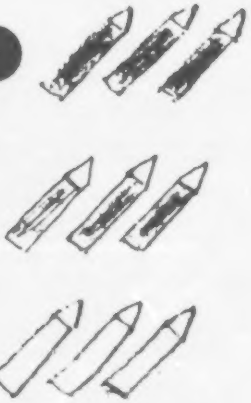

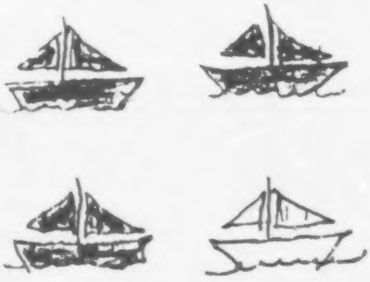

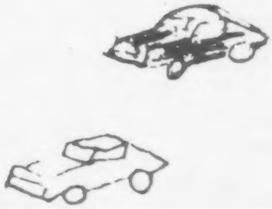

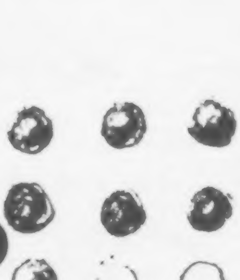

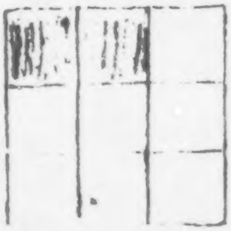

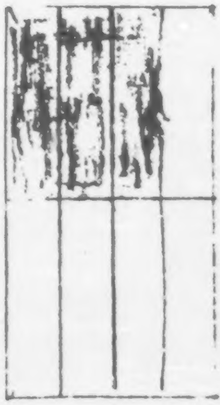

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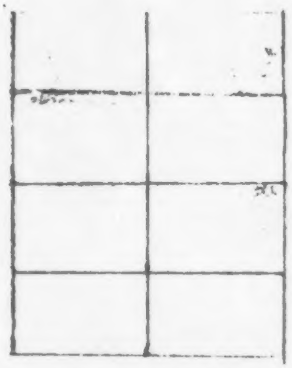

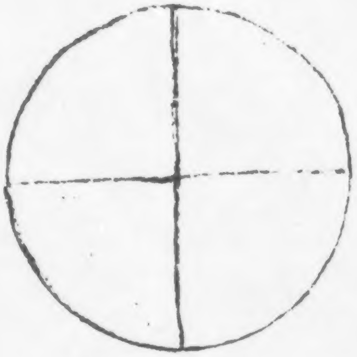

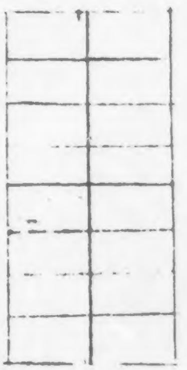

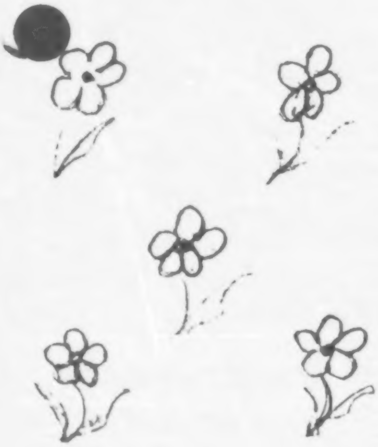

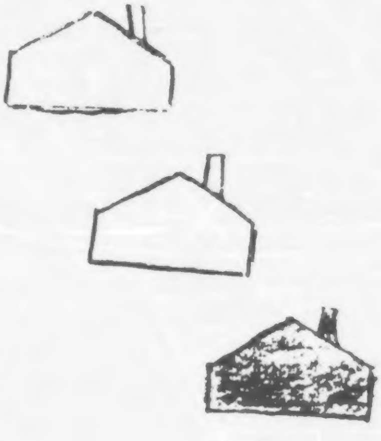

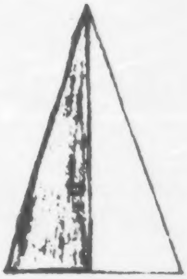

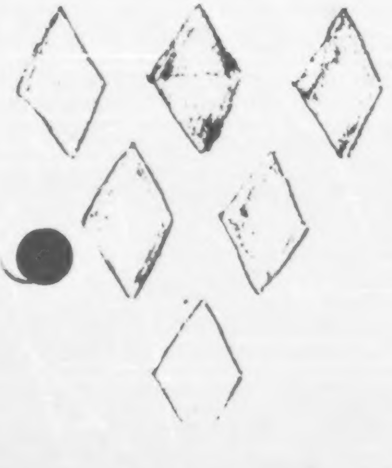

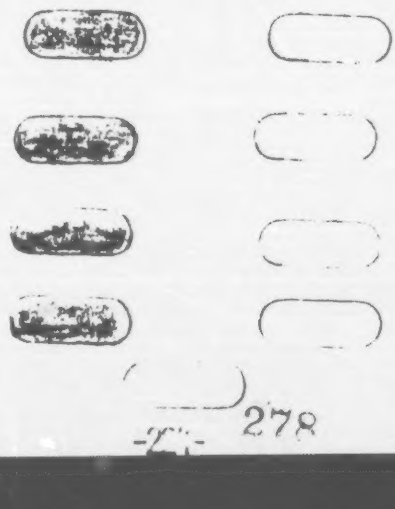

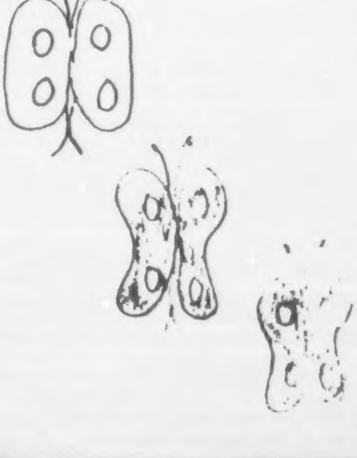

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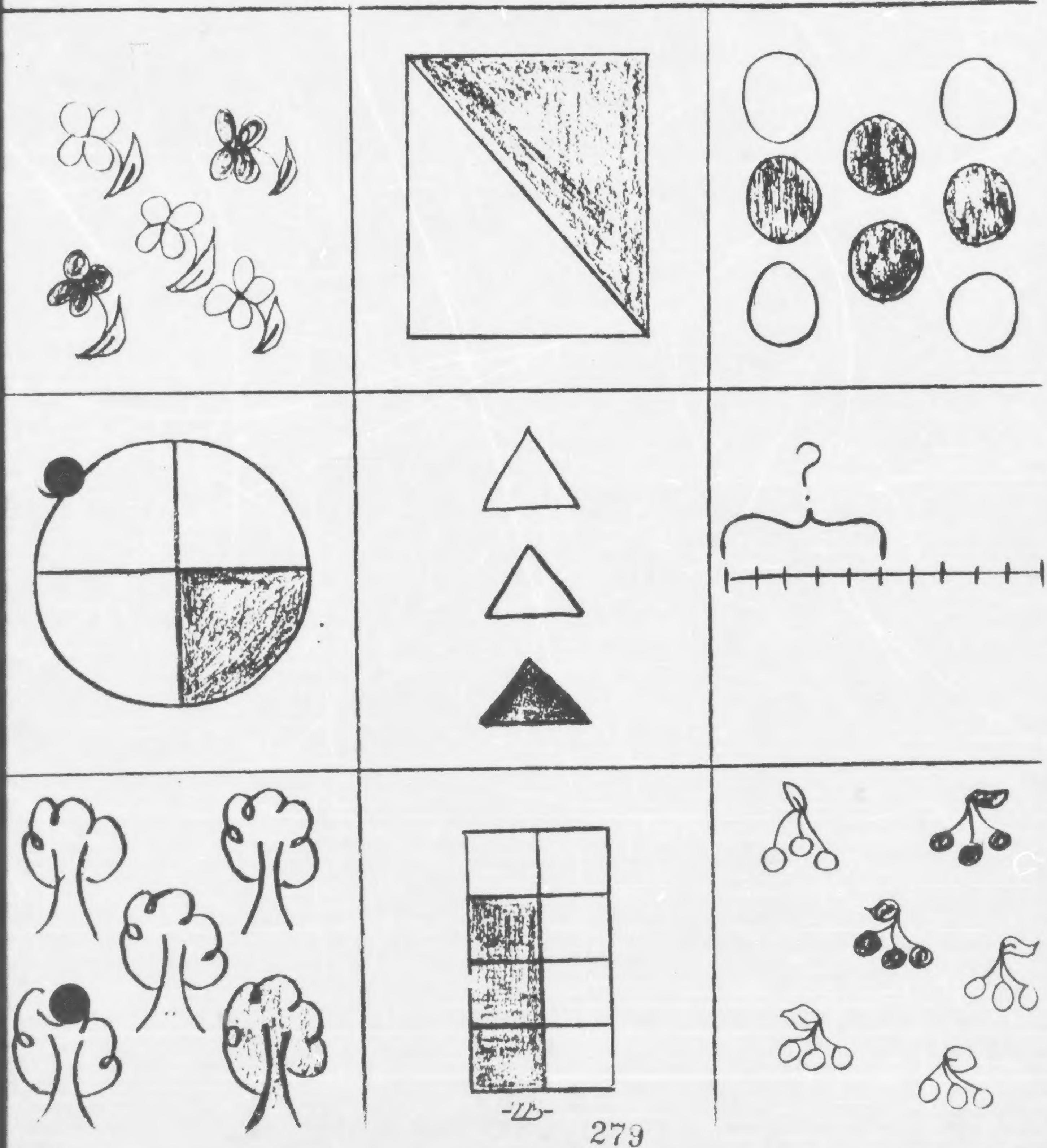

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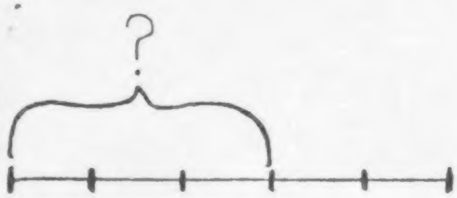

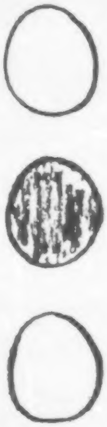

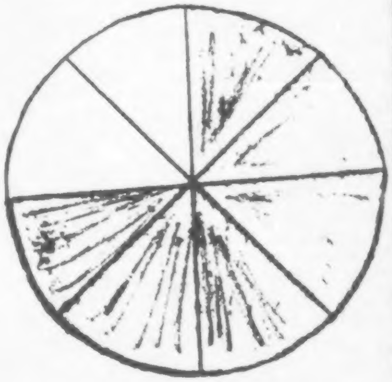

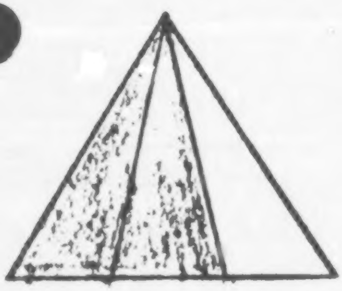

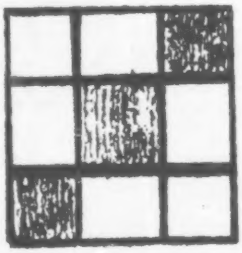

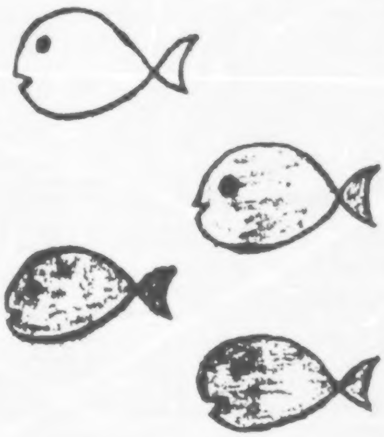

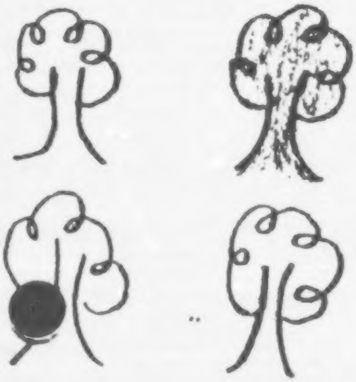

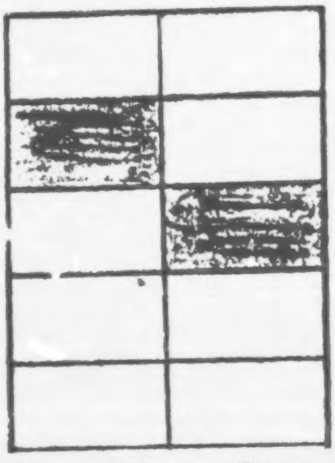

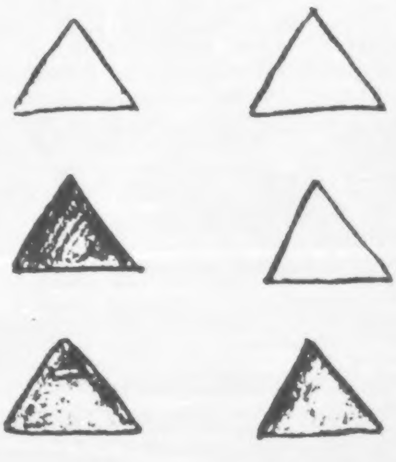

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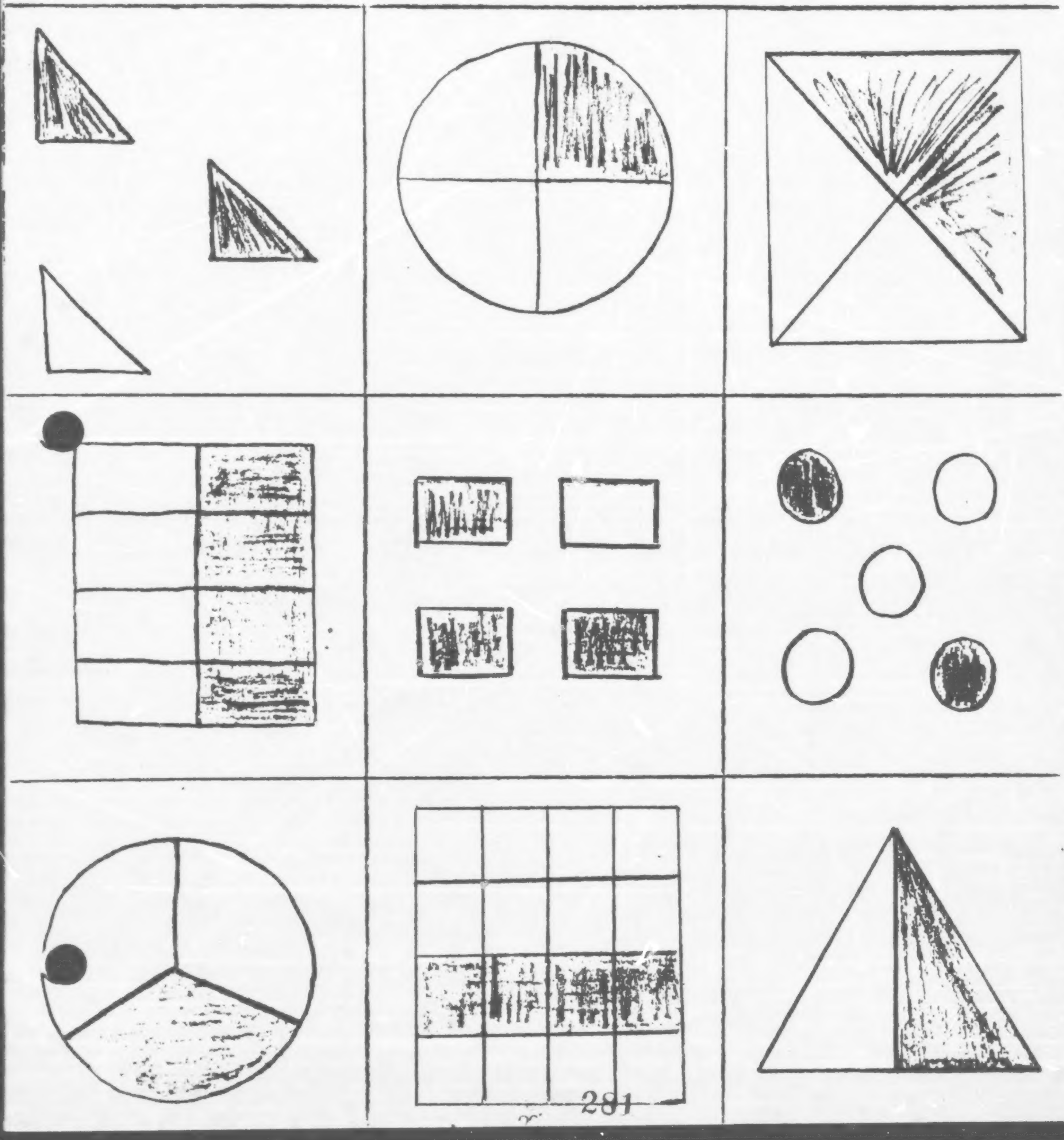
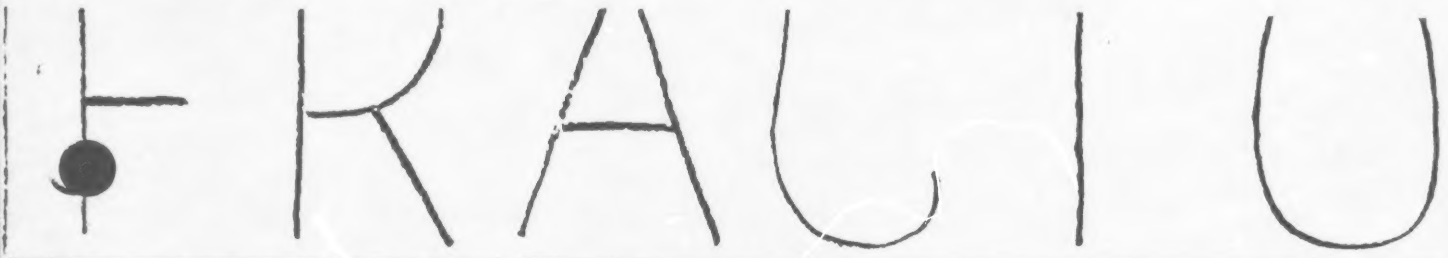
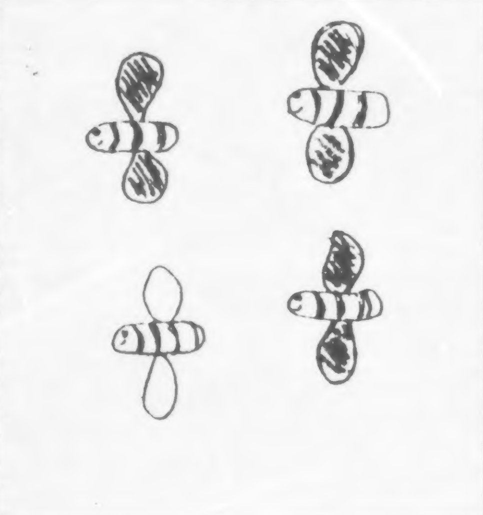
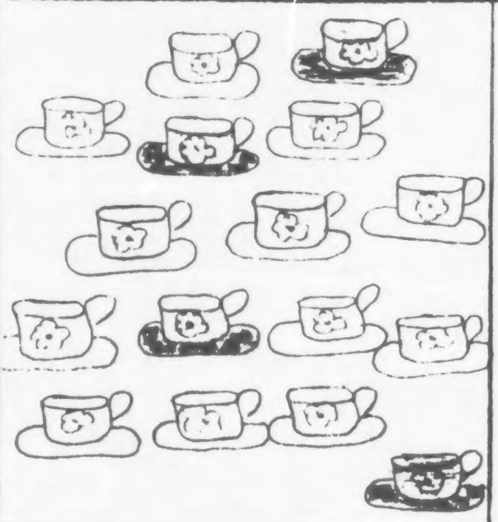
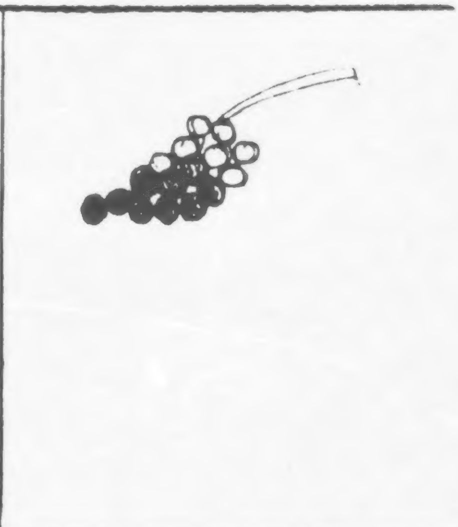
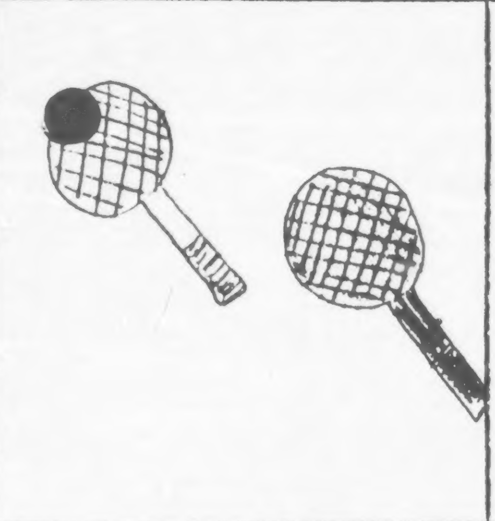


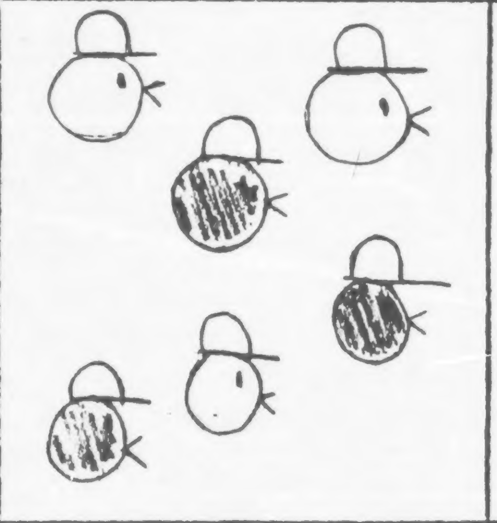


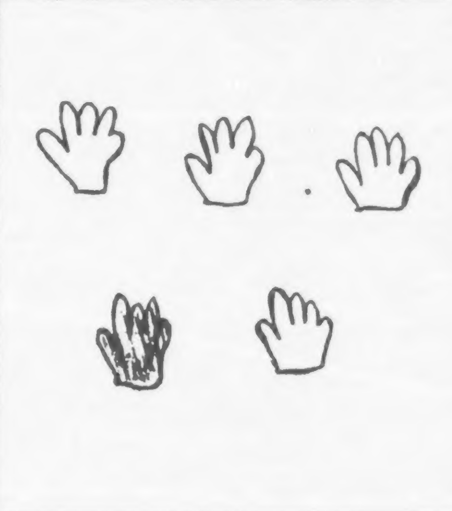


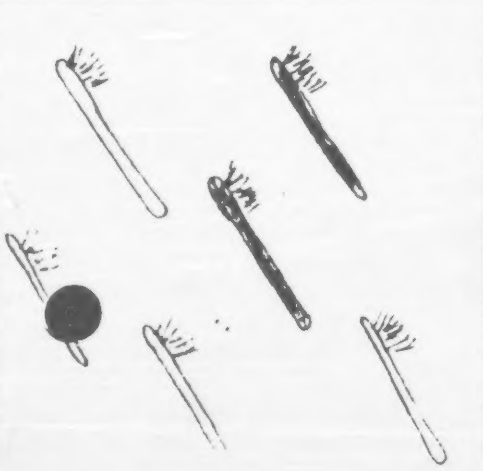


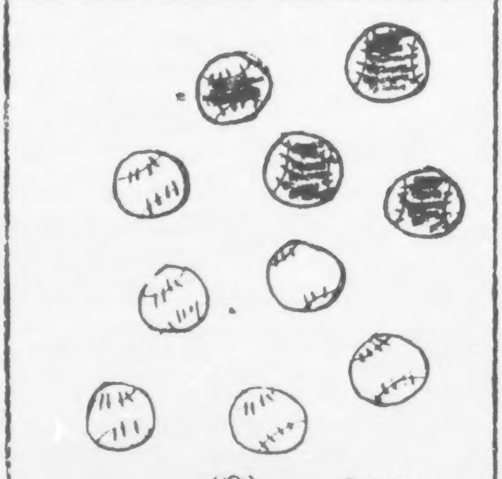


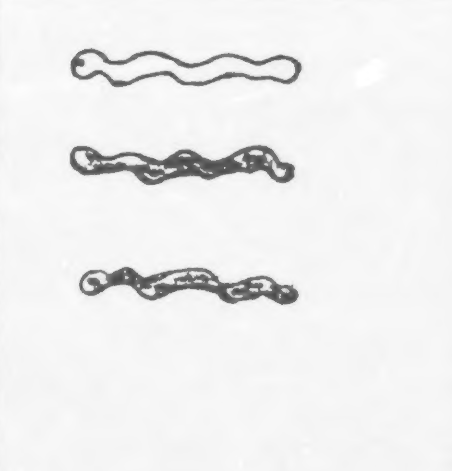






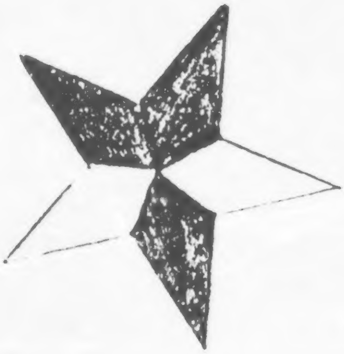


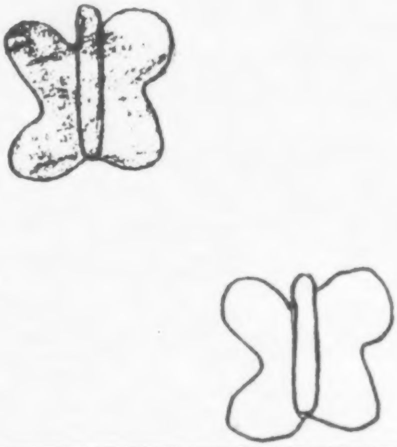


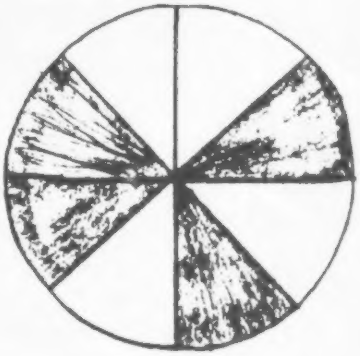


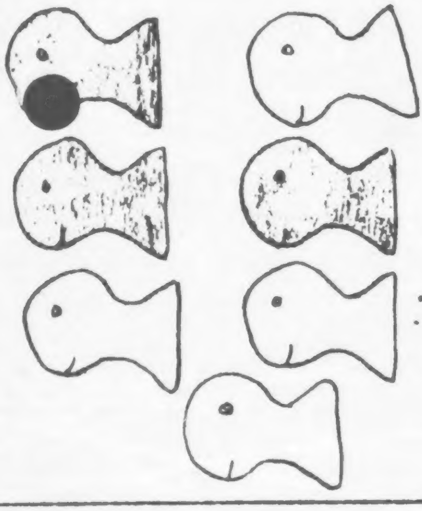
D

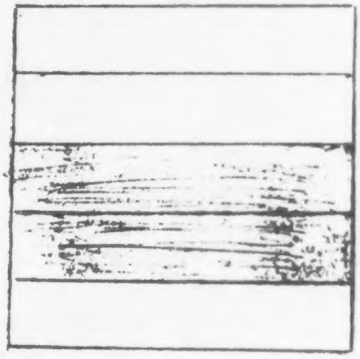
FRACTO

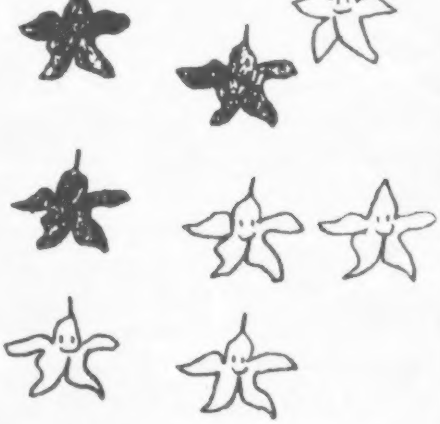


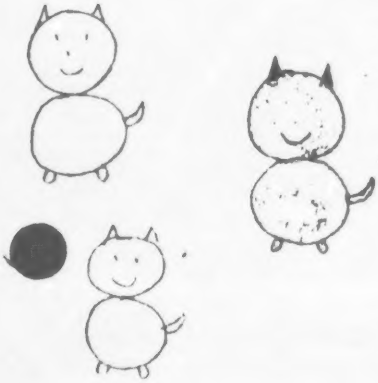


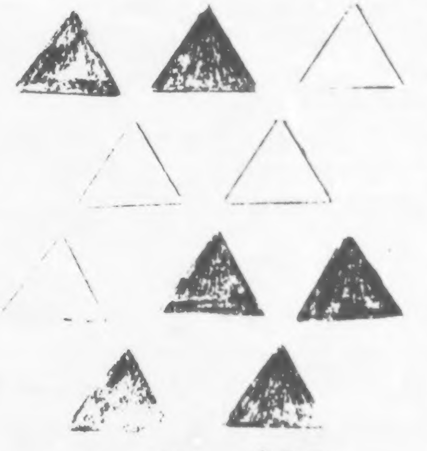


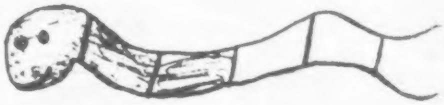












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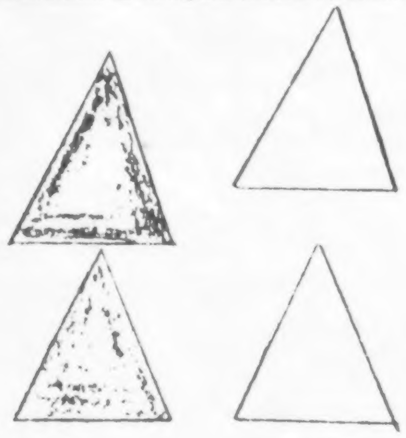

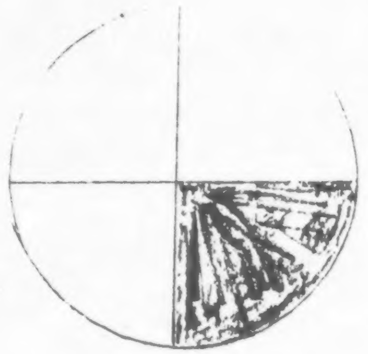

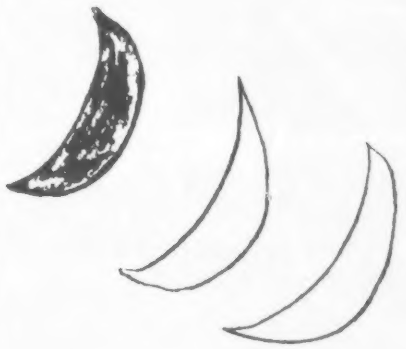

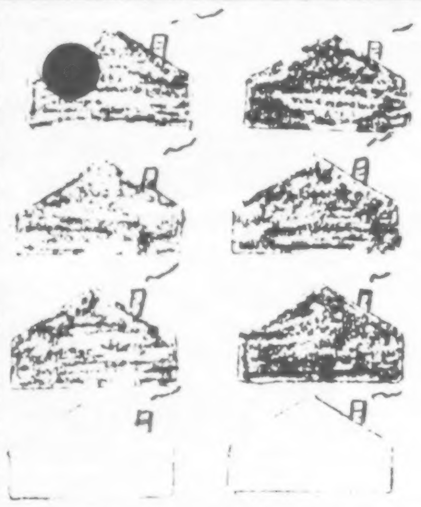

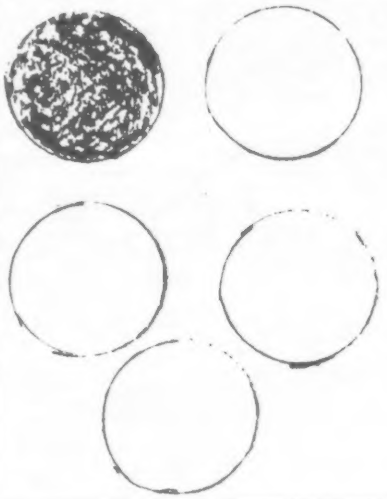

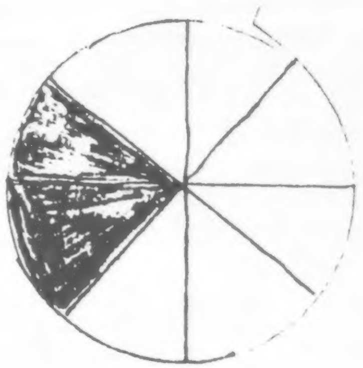

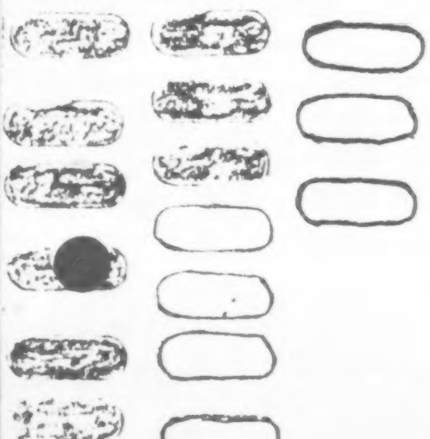

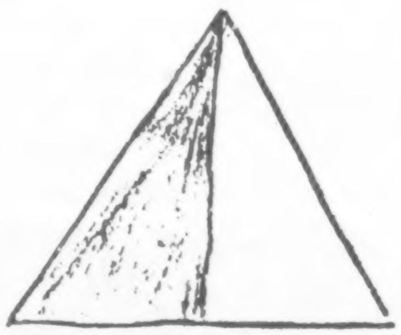

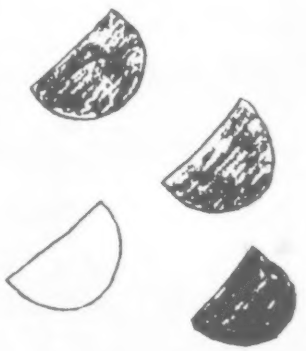

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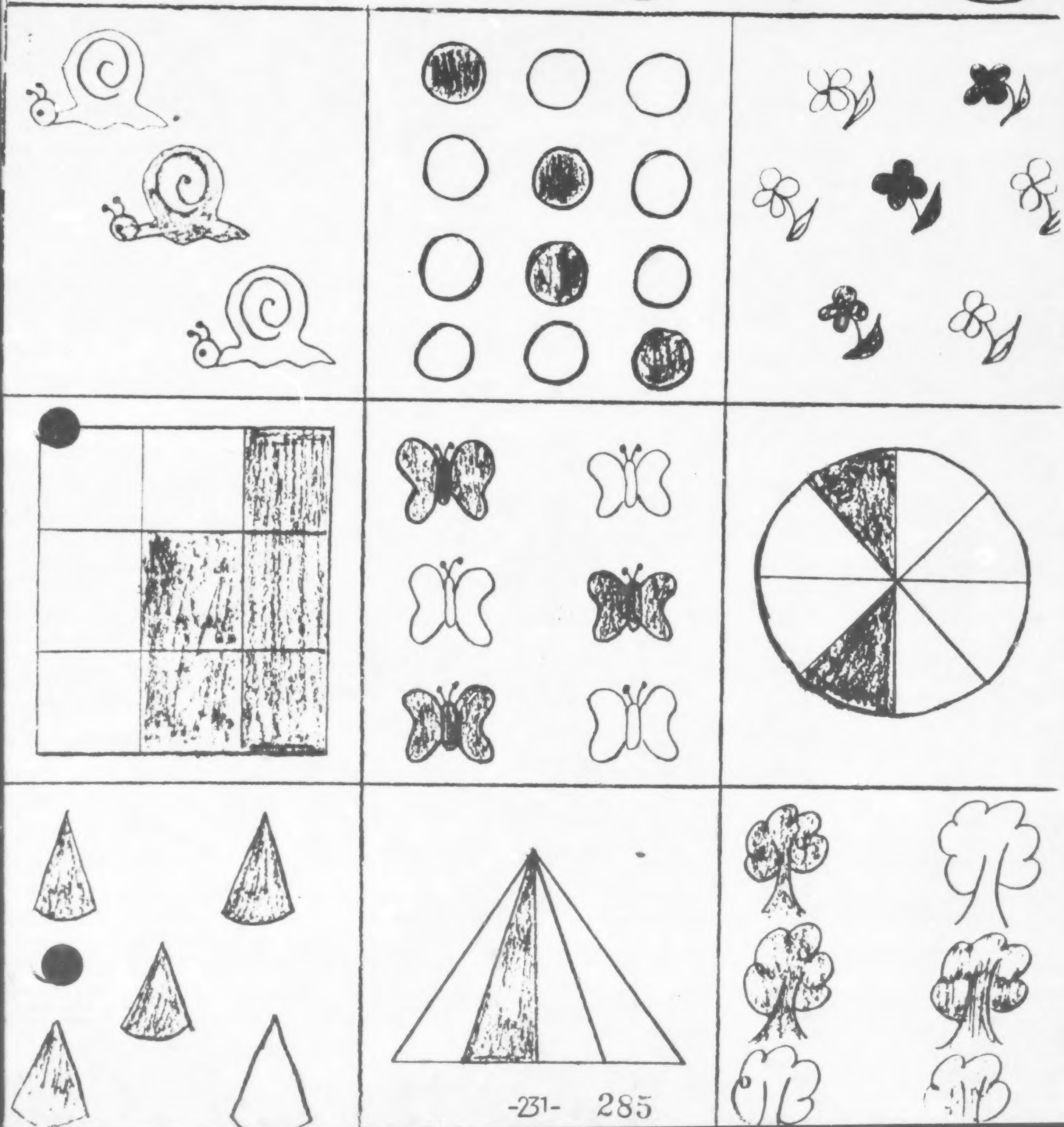

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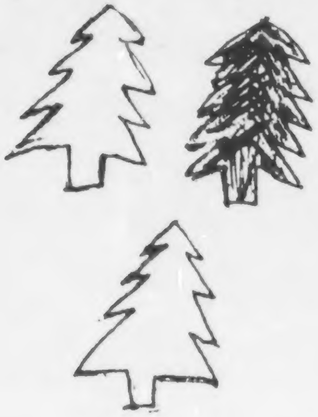
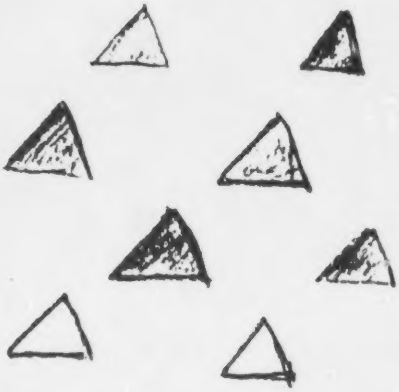
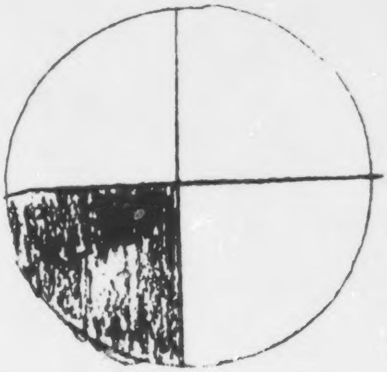
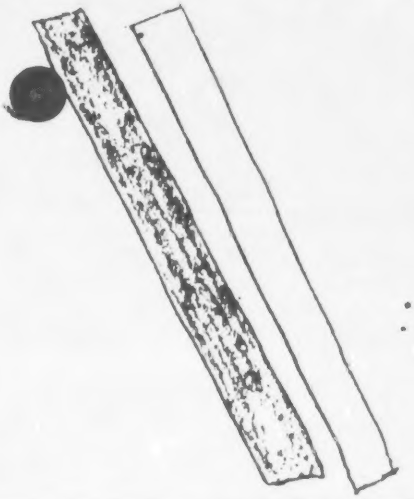
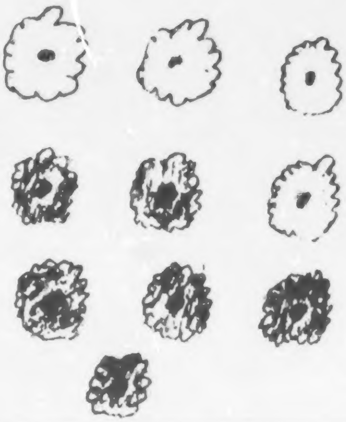
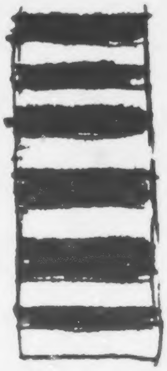


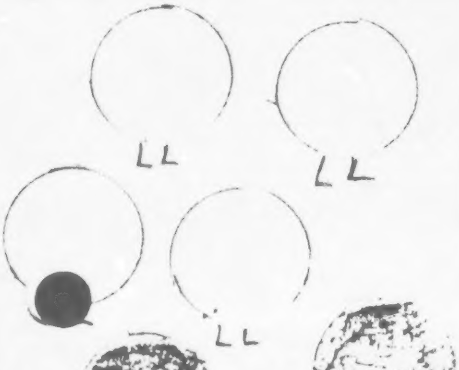


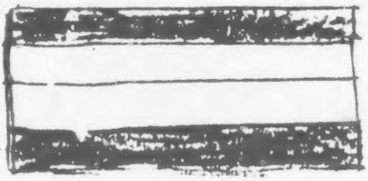


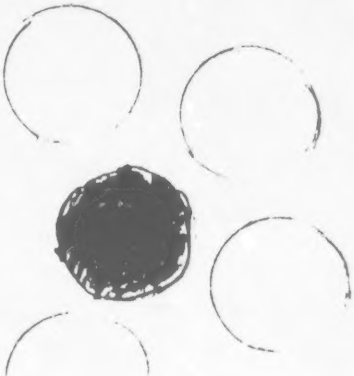












Fracto

$\frac{1}{2}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$
$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{1}{6}$	$\frac{2}{6}$
$\frac{3}{6}$	$\frac{4}{6}$	$\frac{5}{6}$	$\frac{3}{7}$	$\frac{2}{8}$	$\frac{3}{8}$
$\frac{4}{8}$	$\frac{6}{8}$	$\frac{2}{9}$	$\frac{3}{9}$	$\frac{4}{9}$	$\frac{5}{9}$
$\frac{6}{9}$	$\frac{2}{10}$	$\frac{4}{10}$	$\frac{5}{10}$	$\frac{6}{10}$	$\frac{4}{12}$
$\frac{5}{12}$	$\frac{6}{12}$	$\frac{7}{12}$	$\frac{4}{16}$	$\frac{5}{16}$	$\frac{9}{16}$

Master Sheet

CASINO FRACTION

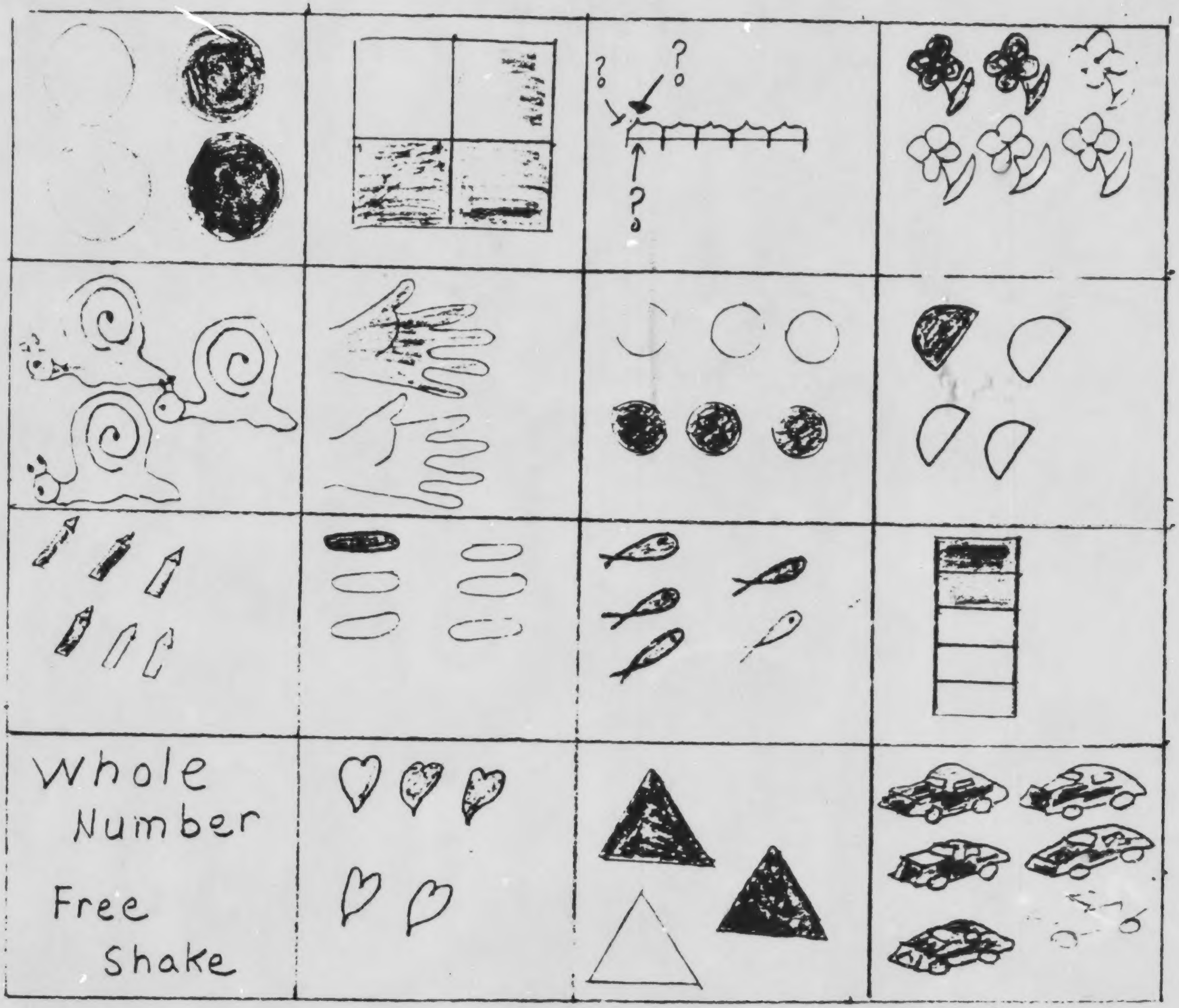
Objective: To provide practice in recognizing fractions.

Activity: For 2 to 4 players

Materials:
Fraction game board
Different colored markers
Two different colored dice

Procedure:

1. Each player rolls the dice. The highest number goes first, 2nd highest second, and so on.
2. One die represents the numerator and the second die the denominator. The child rows the die forming his fraction. He must then place a narker over the corresponding fraction on the game board. The next child then does the same.
3. If a child rolls a fraction that has already been played, he simply loses his turn. The game continues until all the fractions have been covered.
4. Points - Each marker equals 1 point. The child with the most points wins.


?
?
?
Whole
Number
Free
Shake

SUPERMAN-BATMAN

Objective: To provide practice in comparing fractions.

Activity: For 2 to 4 players

Materials: Game board (see diagram)
Deck of cards (see following pages)
die
Marker for each player

Procedure:

1. All players begin at start. The first player rolls the die and moves the number of spaces indicated. The player then draws a card. He/she determines whether the rational number on the card is higher, lower, or equivalent to the one written on the space he or she landed on.

2. If the number on the card is lower in value than the one on the space, the player may remain on the space.

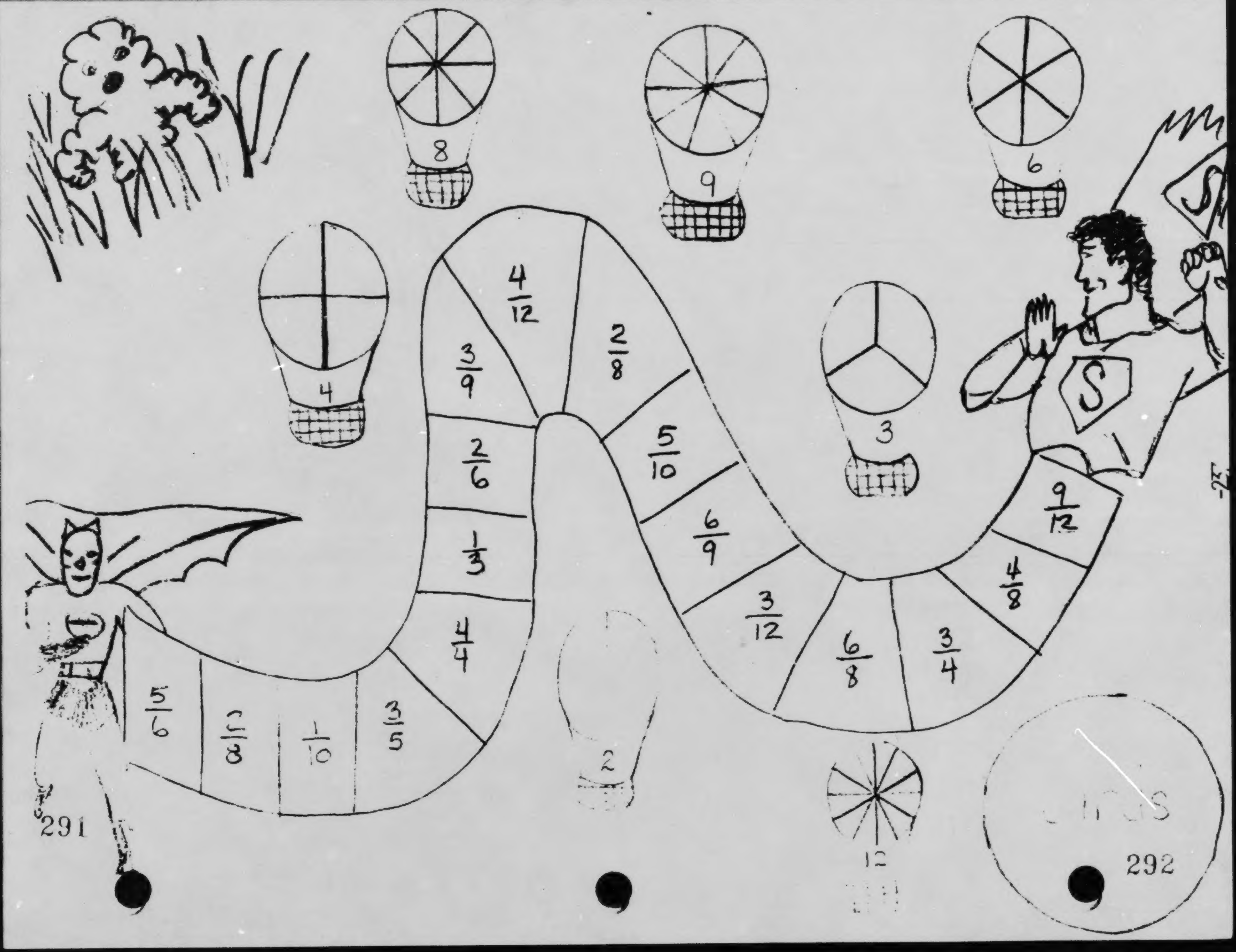
3. If the number on the card is higher in value than the one on the space, the player must move back one space.

4. If the two numbers are equivalent, the player immediately takes an extra turn.

5. If the players calculations are incorrect, he loses a turn.

6. The first player to reach Superman is the winner.

7. The illustrated fractional parts on the gameboard may help in comparisons of values.


8
9
6
4
3
S
S
4/12
3/9
2/8
2/6
5/10
1/3
6/9
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4/4
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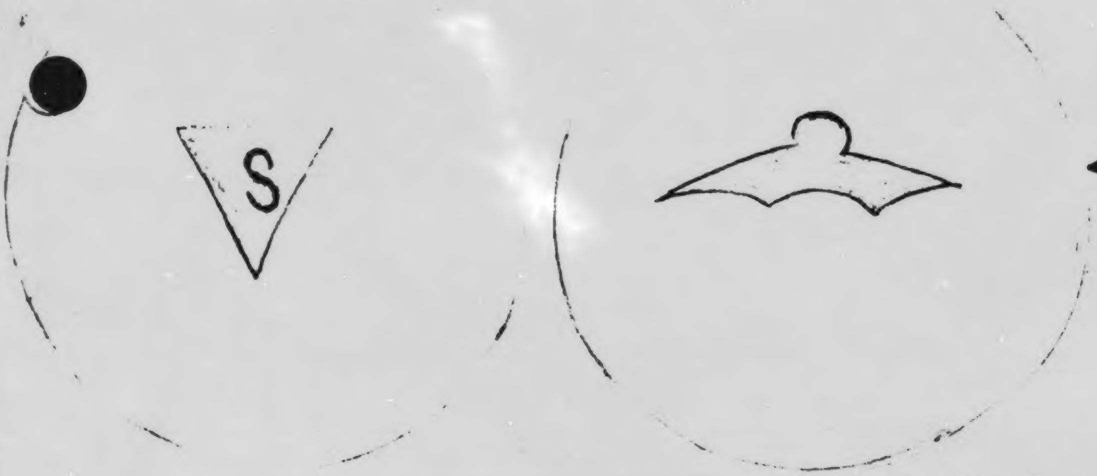
2/8
1/10
3/5
2
12

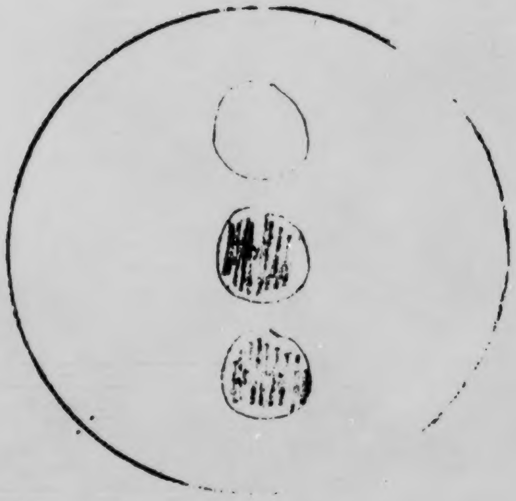

S
Sample Back

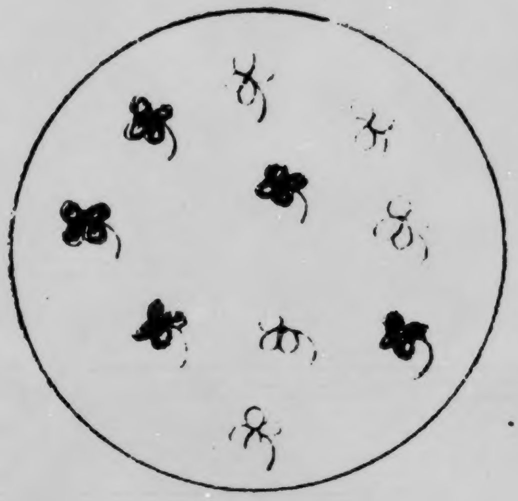
$\frac{5}{9}$

$\frac{1}{3}$

one-fifth

seven-tenths





$\frac{1}{2}$

$\frac{4}{5}$

$\frac{3}{10}$

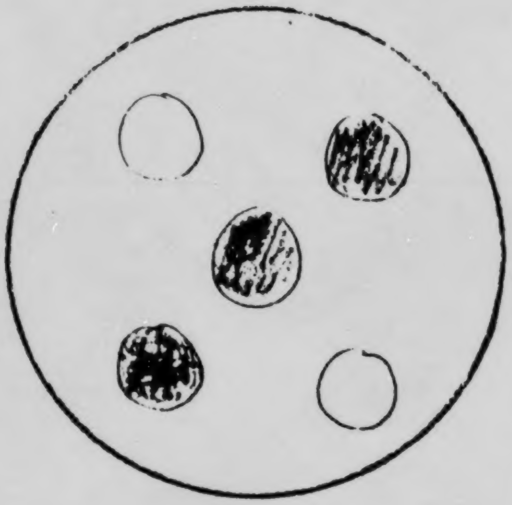
two-sixths

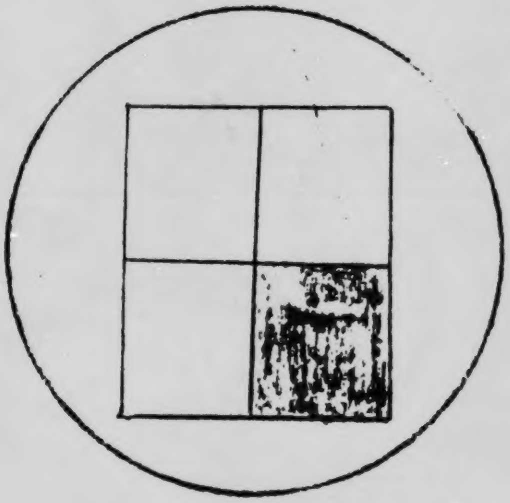
one-ninth

eight-twelfths

$\frac{1}{8}$

two-
fourths



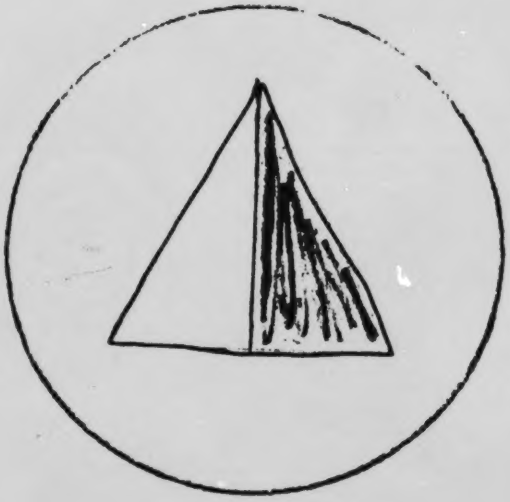


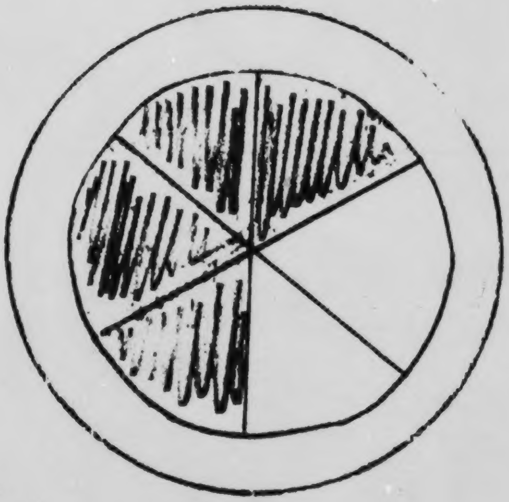
$\frac{6}{12}$

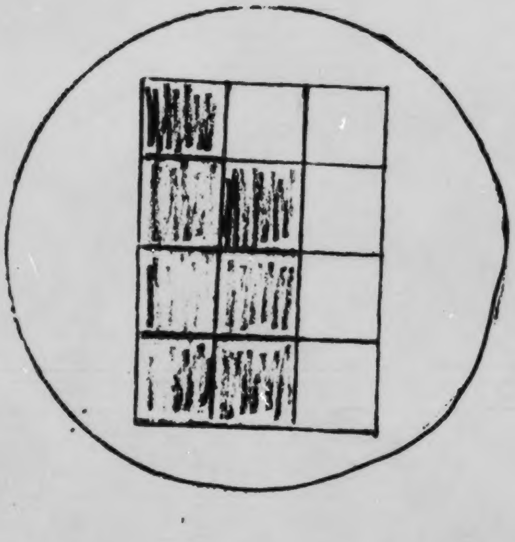
three-
eighths

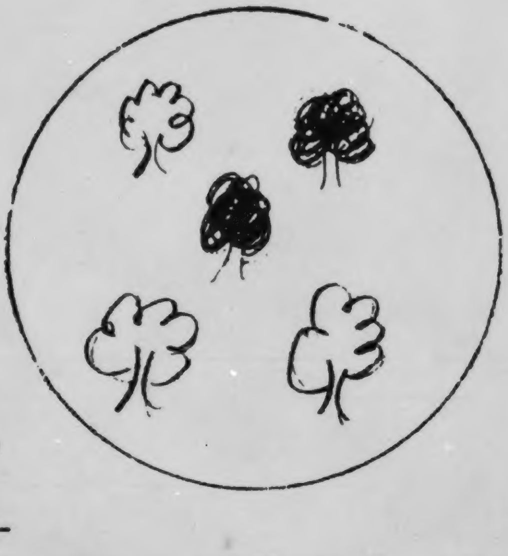
$\frac{4}{12}$

one-third









SUPERMAN STUMBLES OVER A BLOCK OF KRYPTON AND LOSES HIS STRENGTH. GO BACK 2 SPACES.

THE JOKER CAPTURES BATMAN. HE MUST WAIT FOR ROBIN TO HELP HIM ESCAPE. LOSE 1 TURN.

SUPERMAN STOPPED THE TRAIN IN TIME. MOVE AHEAD 1 SPACE.

BATMAN SOLVED THE RIDDLER'S RIDDLE. MOVE AHEAD 2 SPACES.

THE BATMOBILE WON'T START. LOSE 1 TURN.

SUPERMAN LOST HIS MEMORY. GO BACK 1 SPACE.

OLD FRACTION

Objective: To provide practice in addition and subtraction with fractions.

Activity: For 2 to 4 players

Materials: Deck of 53 cards (see following pages)

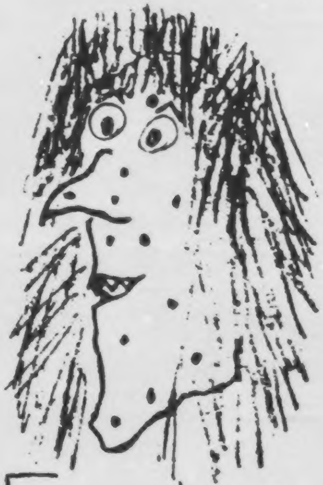
Procedure:

1. Shuffle and deal out all cards to players.
2. Each player looks through his cards and takes out all matches (2 cards make a match) and sets them aside.
3. Play continues with cards remaining in each player's hand.
4. The first player draws a card from the player on his left. If the card matches one in his hand, the player removes the match from his hand. If the card does not match one in his hand, he places it with his other cards in his hand.
5. The next player then takes his turn, drawing from the player on his left. Play continues in this way until all the cards are matched and one person is left with the "Old Fraction".

$$\begin{array}{r} \frac{4}{12} \\ + \frac{8}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{9}{10} \\ - \frac{3}{10} \\ \hline \end{array}$$

Old



Fraction

$$\frac{12}{12}$$

$$\frac{6}{10}$$

$$\begin{array}{r} \frac{2}{7} \\ + \frac{2}{7} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{6}{9} \\ + \frac{1}{9} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{15} \\ + \frac{9}{15} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{8} \\ + \frac{3}{8} \\ \hline \end{array}$$

$$\frac{4}{7}$$

302

$$\frac{7}{9}$$

$$\frac{14}{15}$$

$$\frac{5}{8}$$

303

$$\begin{array}{r} \frac{1}{6} \\ + \frac{2}{6} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{10}{12} \\ - \frac{3}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{11}{16} \\ - \frac{5}{16} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{3} \\ + \frac{1}{3} \\ \hline \end{array}$$

$$\frac{3}{6}$$

304

$$\frac{7}{12}$$

$$\frac{6}{16}$$

$$\frac{2}{3}$$

305

$$\begin{array}{r} \frac{7}{8} \\ -\ \frac{3}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{2} \\ -\ \frac{2}{2} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{10} \\ +\ \frac{5}{10} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{5} \\ +\ \frac{3}{5} \\ \hline \end{array}$$

$$\frac{4}{8}$$

306

$$\frac{1}{2}$$

$$\frac{8}{10}$$

$$\frac{5}{5}$$

307

$$\frac{9}{15} - \frac{6}{15}$$

$$\frac{4}{6} - \frac{2}{6}$$

$$\frac{8}{9} - \frac{4}{9}$$

$$\frac{1}{4} + \frac{2}{4}$$

$$\frac{3}{15}$$

308

$$\frac{2}{6}$$

$$\frac{4}{9}$$

$$\frac{3}{4}$$

309

$$\frac{8}{16} - \frac{4}{16}$$

$$\frac{2}{3} + \frac{2}{3}$$

$$\frac{1}{2} + \frac{1}{2}$$

$$\frac{1}{8} + \frac{5}{8}$$

$$\frac{4}{16}$$

$$\frac{4}{3}$$

$$\frac{2}{2}$$

$$\frac{6}{8}$$

$$\frac{8}{10} - \frac{4}{10}$$

$$\frac{10}{12} - \frac{1}{12}$$

$$\frac{3}{3} - \frac{1}{3}$$

$$\frac{5}{4} - \frac{4}{4}$$

$$\frac{4}{10}$$

$$\frac{9}{12}$$

$$\frac{2}{3}$$

$$\frac{1}{4}$$

RING THE BELL

Objective: To provide practice in comparing fractions.

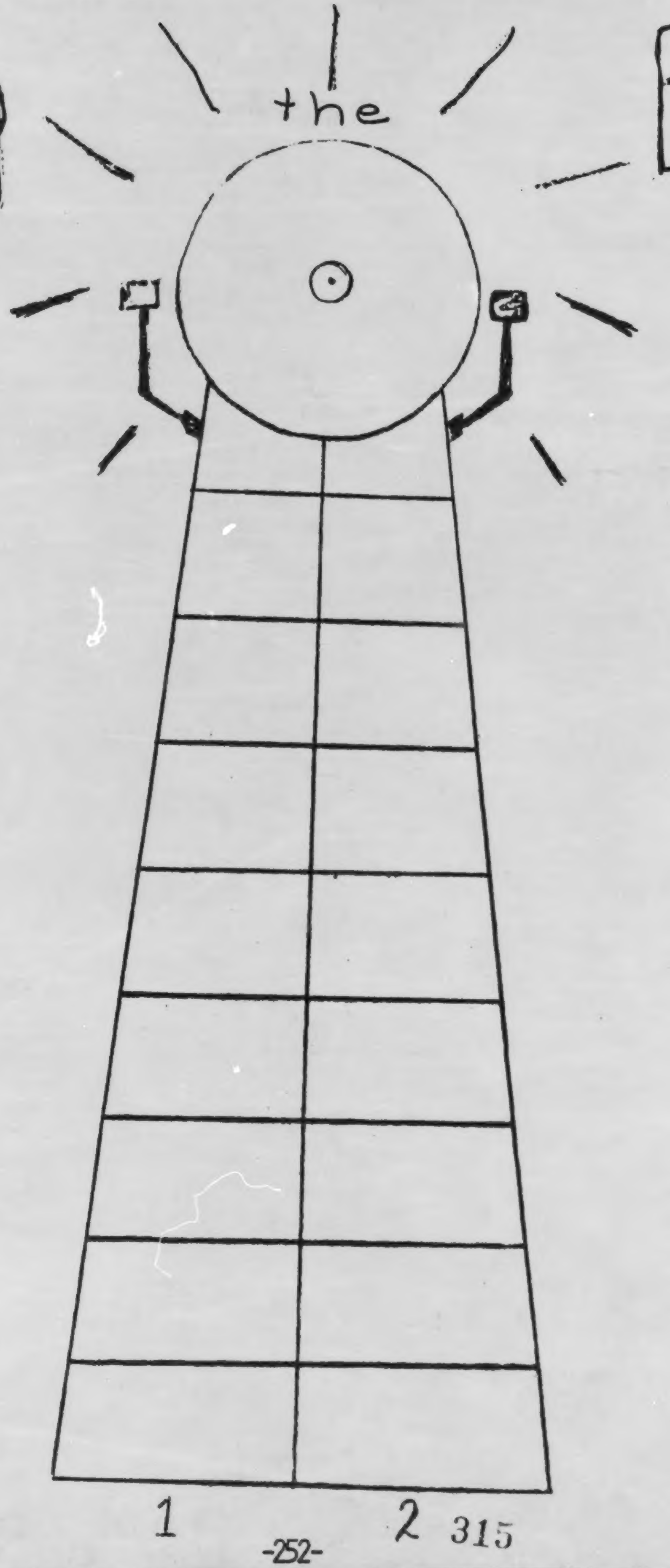
Activity: Two students or teacher and student

Material: Pair of dice "Ring the Bell" game board, 2 marker chips, ditto record sheet

Procedure:

1. Each child rolls the dice to determine who goes first (Highest number goes first.)
2. One die will represent the numerator and the other the denominator. Each child rolls the dice and records (on record sheet) the smallest number as the numerator and the largest number as the denominator. Fraction should also be writeen on the record sheet.
3. They then compare their fractions. The child with the greater fraction moves up one space (i.e.: On child rolls 2/3 and the other child rolls 2/5. Because 2/3 is greater than 2/5 that child would move his marker up one space.)
4. If they both roll equal fractions the one with the largest denominator moves back one space.
5. First child to reach the bell wins.

Ring the Bell



Ring the Bell

Name: ____________

Roll	Numerator	Denominator	Fraction
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

POUNCE

Objective: To provide practice with mulitiplying fractions.

Activity: For 2 to 4 players

Materials: Deck of "Pounce" cards

Procedure:

1. Shuffle and spread out cards face down on table.
2. The first player turns over two cards trying to make a match. If the cards match, he takes those two cards. If they do not match, he turns them back over on the table and ends his turn.
3. Play continues in the same manner until all the cards are taken.
4. The person with the most cards is the winner.

NOTE: The players are not to reduce fractions.

PAGES 255-258 MISSING FROM DOCUMENT PRIOR TO ITS BEING SHIPPED TO EDRS FOR FILMING.

$\frac{1}{6} \times \frac{3}{4}$	$\frac{3}{24}$
$\frac{2}{8} \times \frac{2}{3}$	$\frac{4}{24}$
$\frac{4}{6} \times \frac{1}{2}$	$\frac{4}{12}$
$\frac{1}{3} \times \frac{2}{3}$	$\frac{2}{9}$

$\frac{4}{6} \times \frac{3}{5}$	$\frac{12}{30}$
$\frac{2}{8} \times \frac{3}{4}$	$\frac{6}{32}$
$\frac{1}{3} \times \frac{2}{5}$	$\frac{2}{15}$
$\frac{2}{4} \times \frac{5}{8}$	$\frac{10}{32}$

$\frac{1}{2} \times \frac{5}{6}$	$\frac{5}{12}$
$\frac{2}{5} \times \frac{1}{2}$	$\frac{2}{10}$
$\frac{3}{4} \times \frac{2}{3}$	$\frac{6}{12}$
$\frac{1}{9} \times \frac{2}{3}$	$\frac{2}{27}$

$\frac{3}{5} \times \frac{2}{3}$	$\frac{6}{15}$
$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{4}$
$\frac{2}{4} \times \frac{1}{2}$	$\frac{2}{8}$
$\frac{5}{6} \times \frac{2}{4}$	$\frac{10}{24}$

$\frac{1}{4} \times \frac{2}{3}$	$\frac{2}{12}$
$\frac{1}{2} \times \frac{3}{4}$	$\frac{3}{8}$
$\frac{4}{10} \times \frac{1}{2}$	$\frac{4}{20}$
$\frac{1}{3} \times \frac{1}{3}$	$\frac{1}{9}$

PROBLEM SOLVING

TIC-TAC-TOE

#1

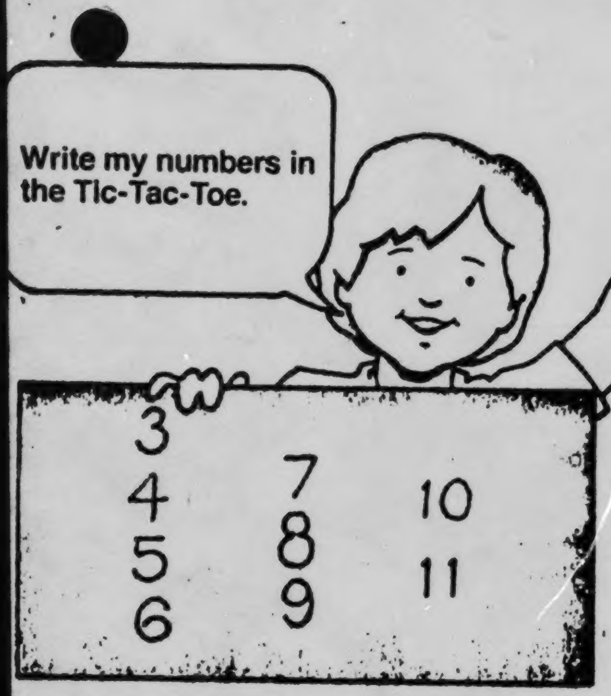
Objective: To provide practice in solving addition problems.

Activity: For 2 students

Materials: Tic-Tac-Toe worksheet

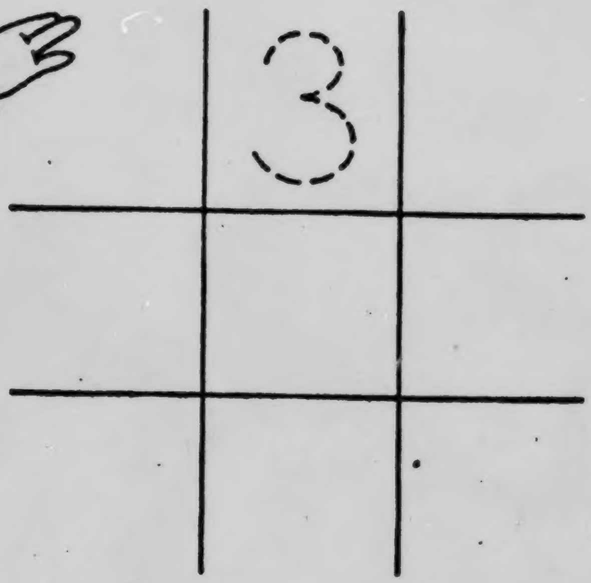
Procedure: Two students for each worksheet. Have the students randomly write the numbers from the box on the worksheet in the nin empty spaces on the tic-tac-toe board. Students in turn choose any problem at the bottom of the page, solve it, and mark (X) or (O) on that number on the tic-tac-toe board. The winner is the first student to get three X's or O's in a line vertically, horizontally, or diagnolly.

Problem Solving Tic-Tac-Toe


Write my numbers in the Tic-Tac-Toe.
3
4
5
6
7
8
9
10
11

[redacted]

Tic-Tac-Toe Board



PROBLEMS

You had 3 toy cars, Sue gave you 4 more. How many cards do you have?

You had 5 cents. You got 5 cents more. How many cents do you have?

You have 1 yellow pencil, 1 red pencil and 1 blue pencil, How many pencils do you have?

There are 6 fish in a bowl
There are 3 fish in another bowl.
How many fish altogether?

The park has 4 swings, It has 2 slides, How many things are there to play on.

Bill counted 5 boys playing kick ball. Ann counted 6 girls playing kick ball. How many are playing kick ball?

We had 2 bats. Coach has 6 new bats. How many bats do we have?

Your mom gave you 2 cookies. Your brother gave 1 more. Your sister gave you 1 more. How many cookies did you get?

You ate 2 hamburgers, Your dad ate 3 hamburgers, How many hanburgers were eaten?

Problem Solving

Tic-Tac-Toe

#2

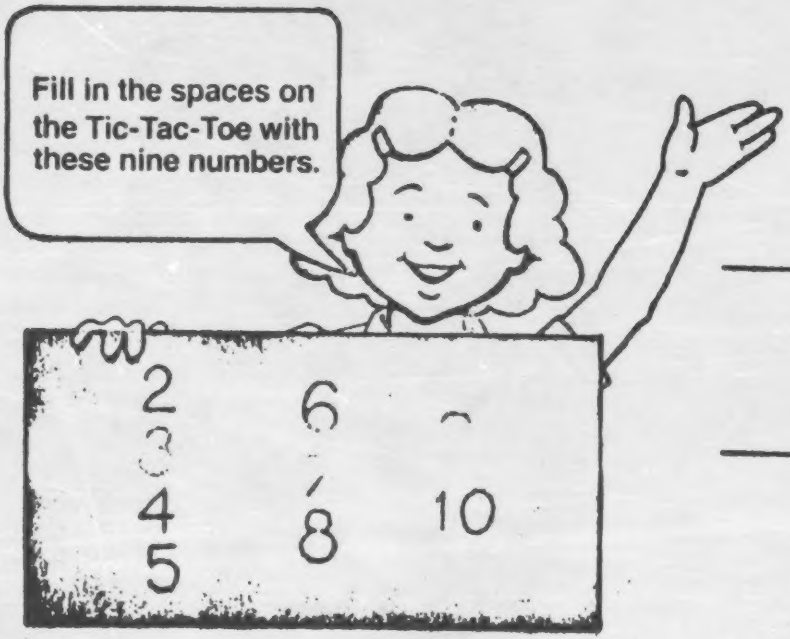
Objective: To provide practice in solving addition and subtraction problems.

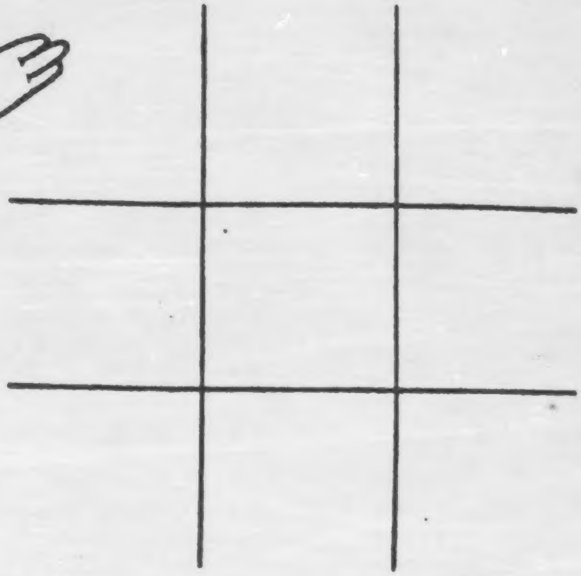
Activity: For 2 students

Materials: Tic-Tac-Toe worksheet

Procedure: Two students for each worksheet. Have the students randomly write the numbers from the box on the worksheet in the nine empty spaces on the tic-tac-toe board. Students in turn choose any problem at the bottom of the page; solve it, and mark (X) or (O) on that number on the tic-tac-toe board. The winner is the first student to get three X's or O's in a line vertically, horizontally, or diagonally.

Problem Solving Tic-Tac-Toe


Fill in the spaces on the Tic-Tac-Toe with these nine numbers.
2
3
4
5
6
7
8
10


Tic-Tac-Toe Board

[redacted]

PROBLEMS

Add 7 to my mystery number and you get 15. What's my mystery number?

Subtract 6 from my mystery number and you get 3. What's my mystery number?

Add my mystery number to itself. Then subtract 4 and you get 0. What's my mystery number?

Subtract 7 from my mystery number and you get 3. What's my mystery number?

Add 17 to my mystery number and you get 20. What's my mystery number?

Subtract 3 from my mystery number. Then add 9 and you get 10. What's my mystery number?

Add my mystery number to itself and you get 12. What's my mystery number?

PROBLEM SOLVING

TIC-TAC-TOE

#3

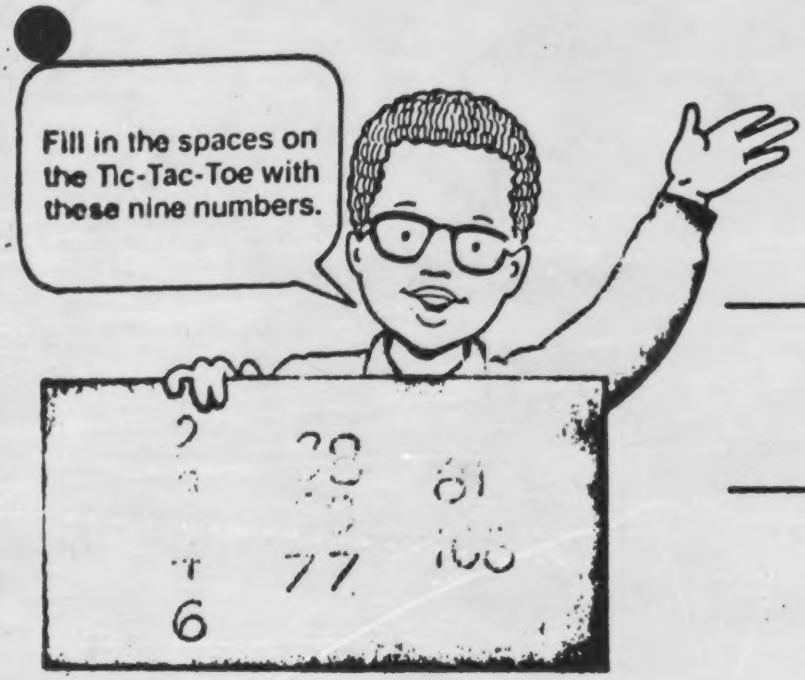
Objective: To provide practice in solving two-step addition, subtraction, and multiplication problems.

Activity: For 2 students

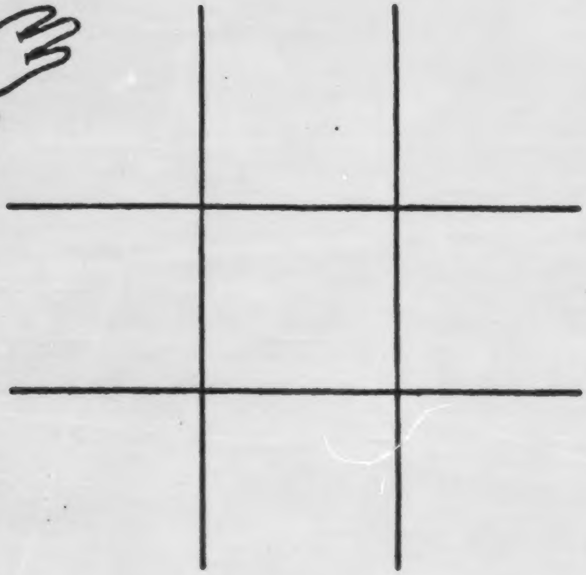
Materials: Tic-Tac-Toe worksheet

Procedure: Two students for each worksheet. Have the students randomly write the numbers from the box on the worksheet in the nine empty spaces, on the tic-tac-toe board. Students in turn choose any problem at the bottom of the page, solve it, and mark (X) or (O) on that number on the tic-tac-toe board. The winner is the first student to get three X's or O's in a line vertically, horizontally, or diagnolly.

Problem Solving Tic-Tac-Toe


Fill in the spaces on the Tic-Tac-Toe with these nine numbers.
2
38
81
4
77
108
6

Tic-Tac-Toe Board



[redacted]

PROBLEMS

I had 45 comic books. I gave my friend 24 of them. My friend gave me 17 of her comic books. How many comic books do I have now?

How many legs on 12 dogs and 15 cats?

How much money is 31 dimes and 18 nickels?

I bought 4 records at $4.25 each. I gave the clerk $20. How much change did I receive?

How many hours in 3 days and 5 hours?

Roller coaster rides cost 25¢ each. Ferris wheel rides cost 50¢ each. What's the cost for four roller coaster rides and 2 ferris wheel rides?

I had $20. I spen $2.50,$4.25,and $7.25. How much is left?

How many legs on 9 cows and 12 chickens?

There are 4 teams of fifth graders and 5 teams of sixth graders. Each team has 9 players. How many players are there?

PROBLEM SOLVING

TIC-TAC-TOE

#4

Objective: To provide practice in solving two-step addition, subtraction, multiplication, and division problems.

Activity: For 2 students

Materials: Tic-Tac-Toe worksheet

Procedure: Two students for each worksheet. Have the students randomly write the numbers from the box on the worksheet in the nine empty spaces on the tic-tac-toe board. Students in turn choose any problem at the bottom of the page, solve it, and mark (X) or (O) on that number on the tic-tac-toe board. The winner is the first student to get three X's or O's in a line vertically, horizontally or diagonally.

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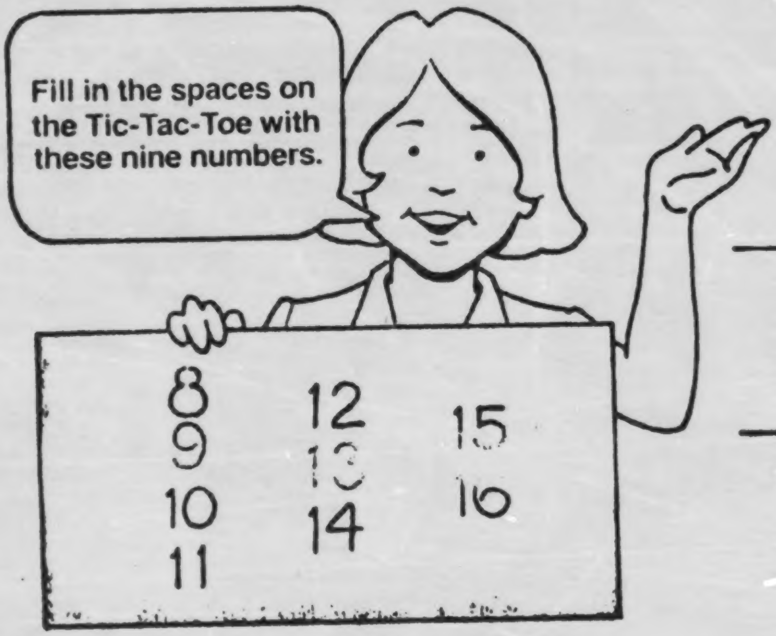
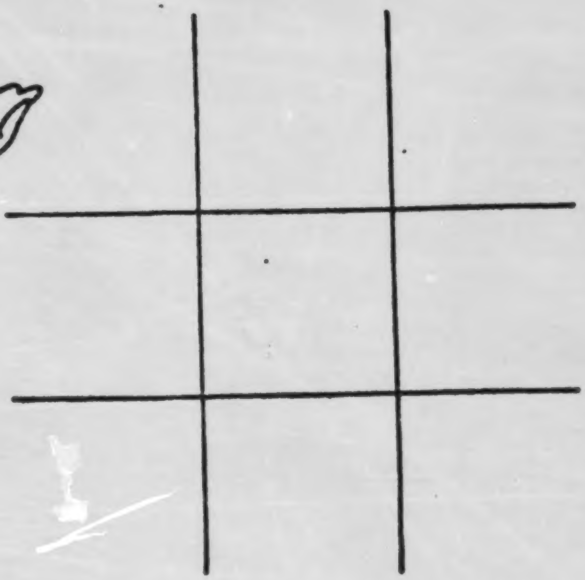
Problem Solving Tic-Tac-Toe


Fill in the spaces on the Tic-Tac-Toe with these nine numbers.
8
9
10
11
12
13
14
15
16

Tic-Tac-Toe Board



[redacted]

PROBLEMS

If you add 58 to my mystery number and then divide by 7, you get 10. What's my mystery number?

If you multiply my mystery number by 5 and then add 10, you get 75. What's my mystery number?

If you divide my mystery number by 7 and then add 18, you get 20, How old am I?

If you multiply my mystery number by 6 and then divide by 12, you get 4. What's my mystery number?

If you multiply my mystery number by 9 and then subtract 49, you get 50. What's my mystery number?

If you multiply my mystery number times itself and then add 19, you get 100. What's my mystery number?

Seven times my mystery number is 20 more than 5 times in my mystery number. What's my mystery number?

My mystery number is between 10 and 20. If you divide it by 11, you get a remainder f 4. What's my mystery number?

If you divide my mystery number by 4 and then multiply by 10, you get 40. What's my mystery number?

MIXED NUMBER CHALLENGE

Objective: To provide practice in converting improper fractions to whole and mixed numbers.

Activity: For 2 to 4 students

Material: Game board with two spinners mounted to top of board (See diagram) Tic-Tac-Toe markers

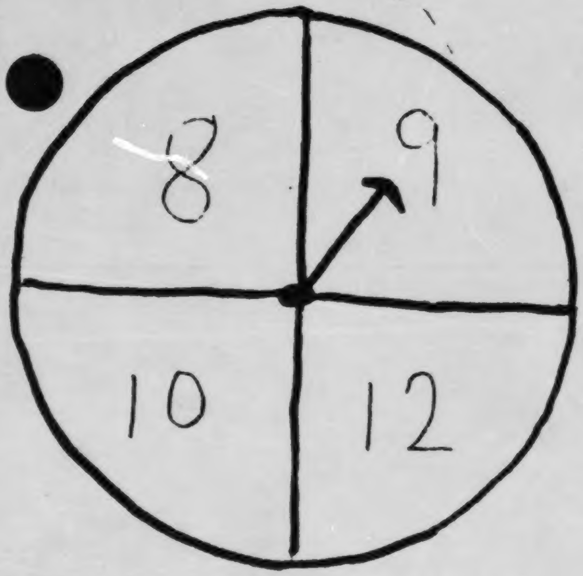
Procedure:

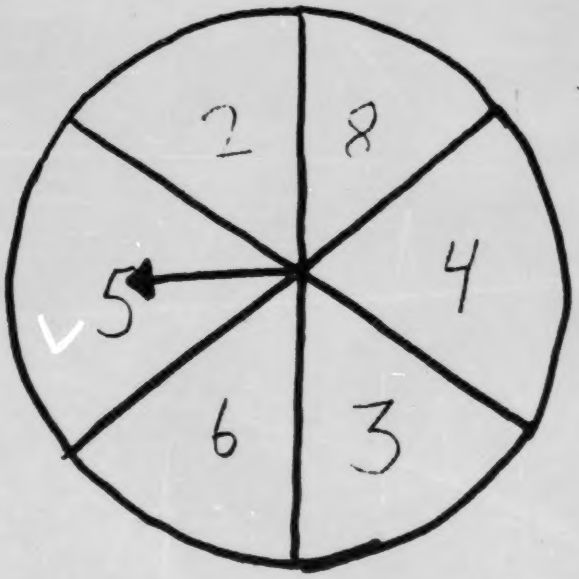
1. Each player spins spinner to right side of game board with the highest number going first. If students spin same number they then re-spin. Each player chooses a board on the game board.

2. Child spins spinner on the left representing the numerator. Hen then spins spinner on the right which represents the denominator. This will give him his improper fraction that he must change to a mixed number. (Children should use scrap paper if necessary.) (i.e.: Left spinner points to the 9. Right spinner points to the 5. His improper fraction is 9/5 which he changes to a mixed number by dividing the denominator into the numerator and expressing the remainder over the same denominator. Answer is 1 4/5.

3. The child then takes his marker and places it over the corresponding mixed number on his game card (Bingo pattern. It should be pointed out that his mixed number may not be on his card.

4. The first student to get three markers across, up and down or diagonally is the winner.





1

$1\frac{4}{6}$	$2\frac{2}{3}$	$2\frac{2}{5}$
4	$1\frac{4}{5}$	$1\frac{3}{6}$
1	$1\frac{2}{8}$	$2\frac{2}{4}$

2

$1\frac{4}{8}$	$1\frac{1}{8}$	2
$1\frac{3}{5}$	$1\frac{2}{6}$	$2\frac{1}{4}$
$3\frac{1}{3}$	$1\frac{4}{6}$	$4\frac{1}{2}$

3

$4\frac{1}{2}$	$1\frac{4}{6}$	$1\frac{3}{5}$
$1\frac{1}{8}$	$1\frac{4}{5}$	$1\frac{4}{8}$
$2\frac{2}{4}$	3	1

4

$2\frac{2}{3}$	6	$1\frac{2}{8}$
1	$1\frac{4}{5}$	$2\frac{2}{5}$
$3\frac{1}{3}$	$2\frac{1}{4}$	$2\frac{2}{3}$

ACTIVITY PACK

Objective: To provide practice in problem solving using varied operations

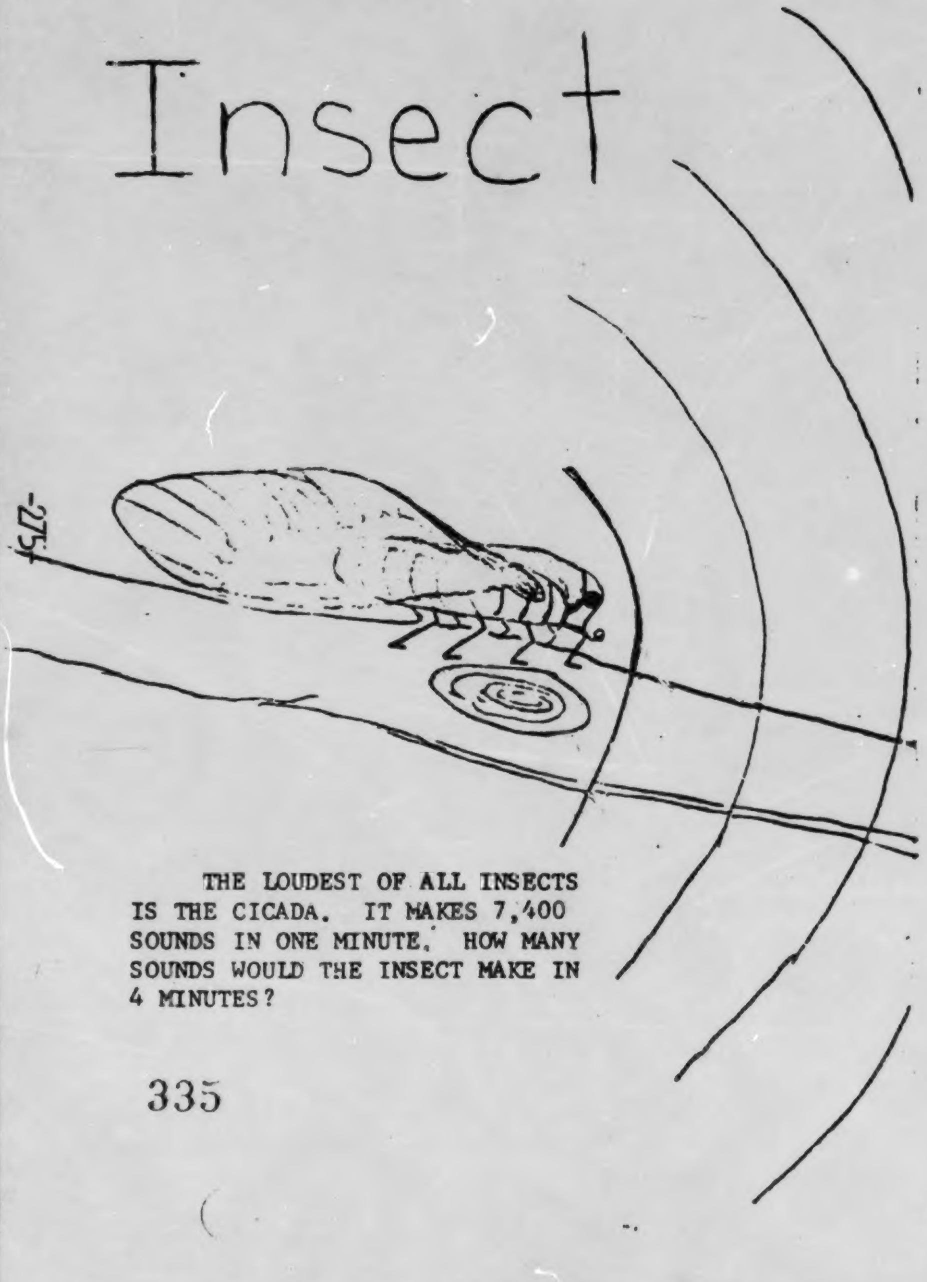
Activity: For one (1) child

Materials: Set of task cards
Answer Key

Procedure: Child works at his own pace solving problems.

NOTE: Each card can be colored in and laminated on a 5" x 8" index card.

Loudest Insect



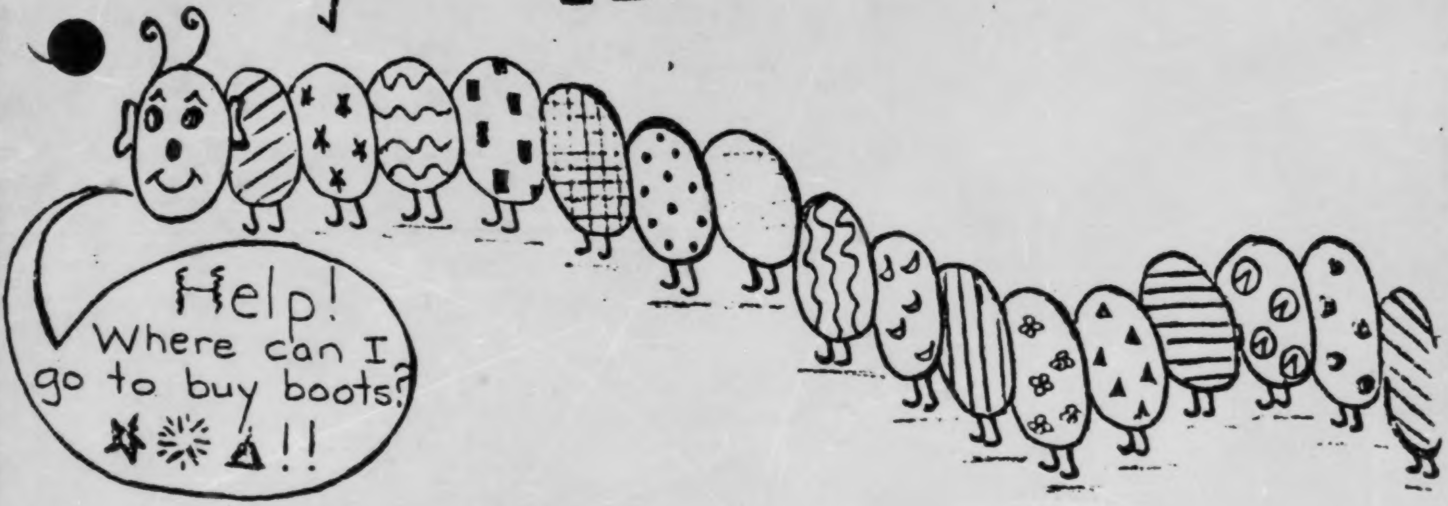
THE LOUDEST OF ALL INSECTS IS THE CICADA. IT MAKES 7,400 SOUNDS IN ONE MINUTE. HOW MANY SOUNDS WOULD THE INSECT MAKE IN 4 MINUTES?

★ Starfish ★

THE LARGEST STARFISH EVER FOUND HAD A TIP TO TIP DIAMETER OF 54.33 INCHES. THE SMALLEST HAD A DIAMETER OF 0.78 INCHES. WHAT WAS THE DIFFERENCE IN SIZE?

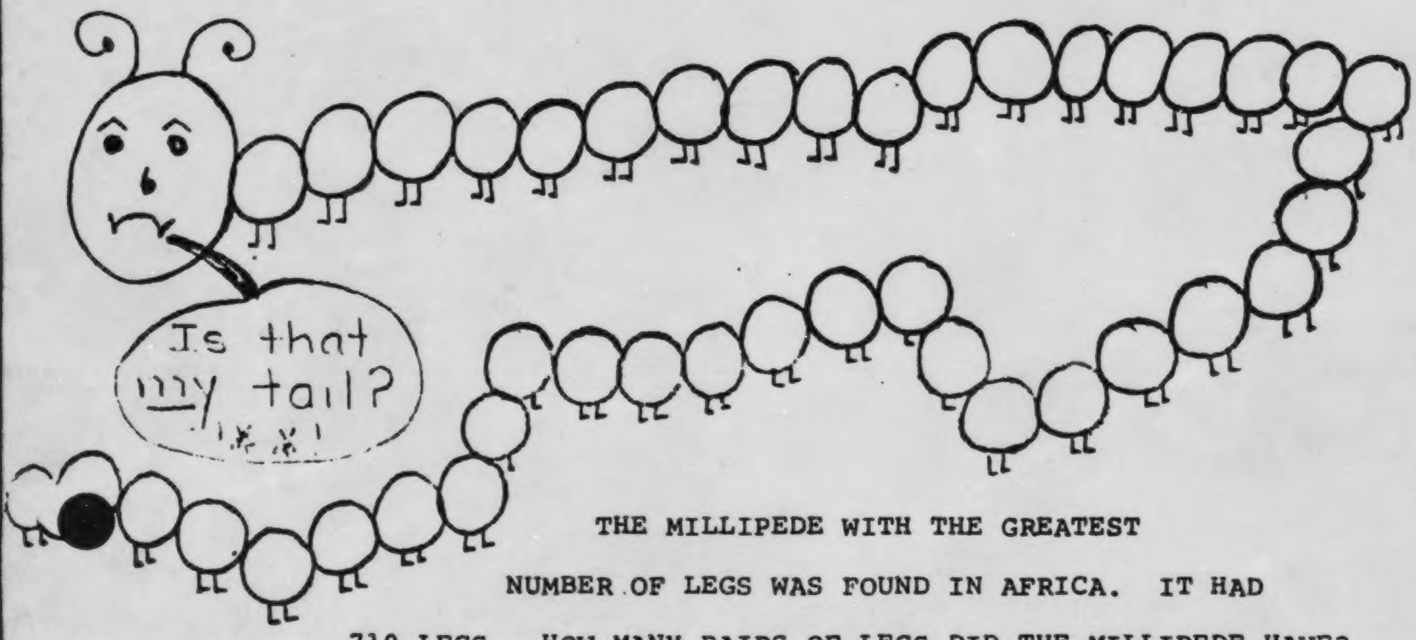
!***!
Isn't MOM the biggest starfish you've ever seen?
She sure is!

Many-Legged Creature


Help! Where can I go to buy boots? !!

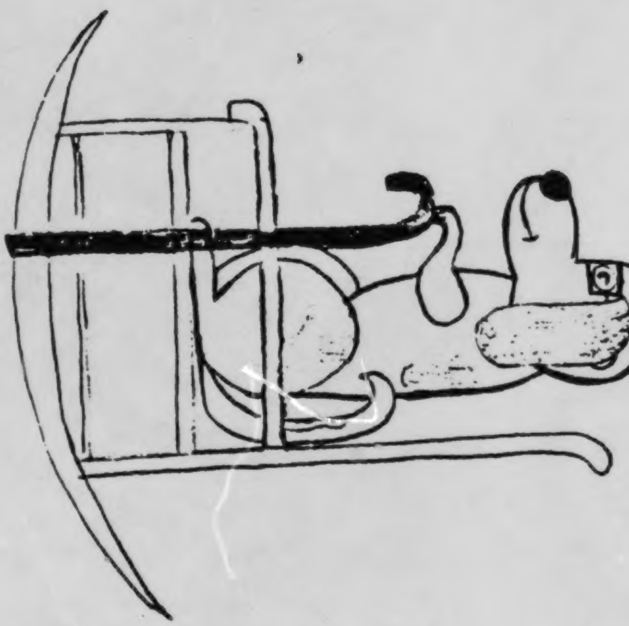
THE CENTIPEDE WITH THE
GREATEST NUMBER OF LEGS WAS FOUND IN EUROPE.
IT HAD 177 LEGS ON ONE SIDE. HOW MANY LEGS DID THE CENTIPEDE HAVE IN ALL?

Many, Many-Legged Creature


Is that my tail?

THE MILLIPEDE WITH THE GREATEST
NUMBER OF LEGS WAS FOUND IN AFRICA. IT HAD
710 LEGS. HOW MANY PAIRS OF LEGS DID THE MILLIPEDE HAVE?

OLDEST DOG



THE OLDEST DOG RECORDED WAS NAMED "BLUEY" WHO LIVED IN AUSTRALIA AND WORKED WITH CATTLE AND SHEEP. HE LIVED TO BE 29 YEARS AND 5 MONTHS OLD. HOW MANY MONTHS DID HE LIVE?

Dog Population

Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf

England

Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
Arf
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Arf
Arf
Arf
Arf
Arf

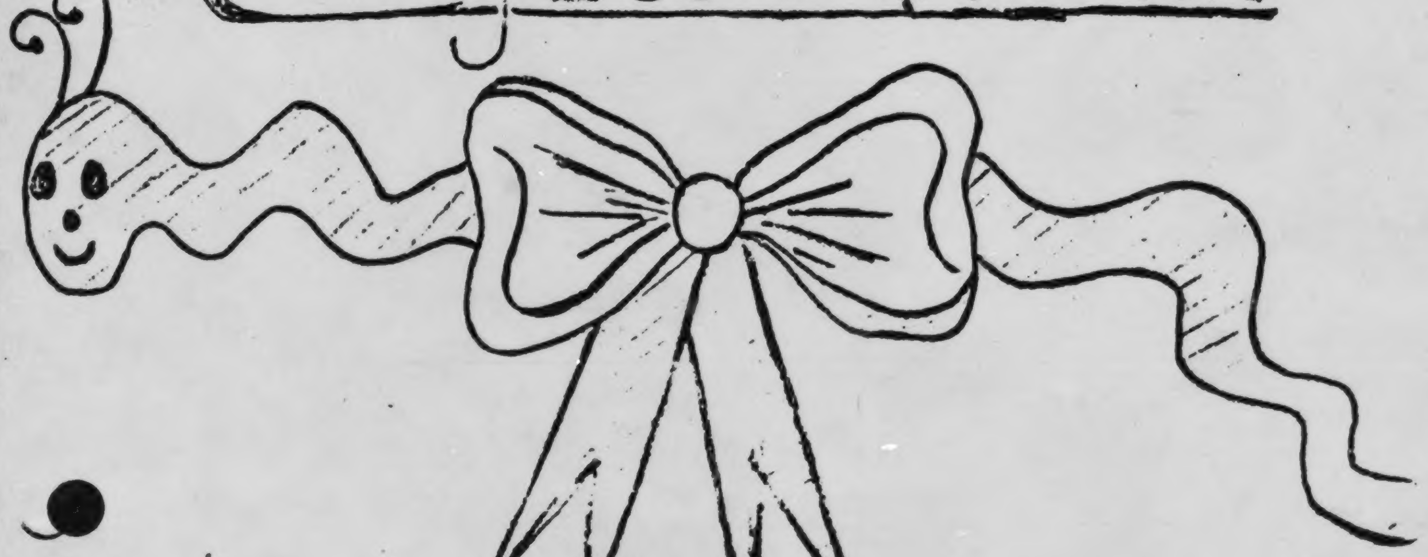
U.S.A

IN 1979 THERE WERE ABOUT 41,000,000 DOGS IN THE UNITED STATES AND ,500,000 IN ENGLAND. HOW MANY MORE DOGS LIVED IN THE UNITED STATES?

HOUSE MOUSE

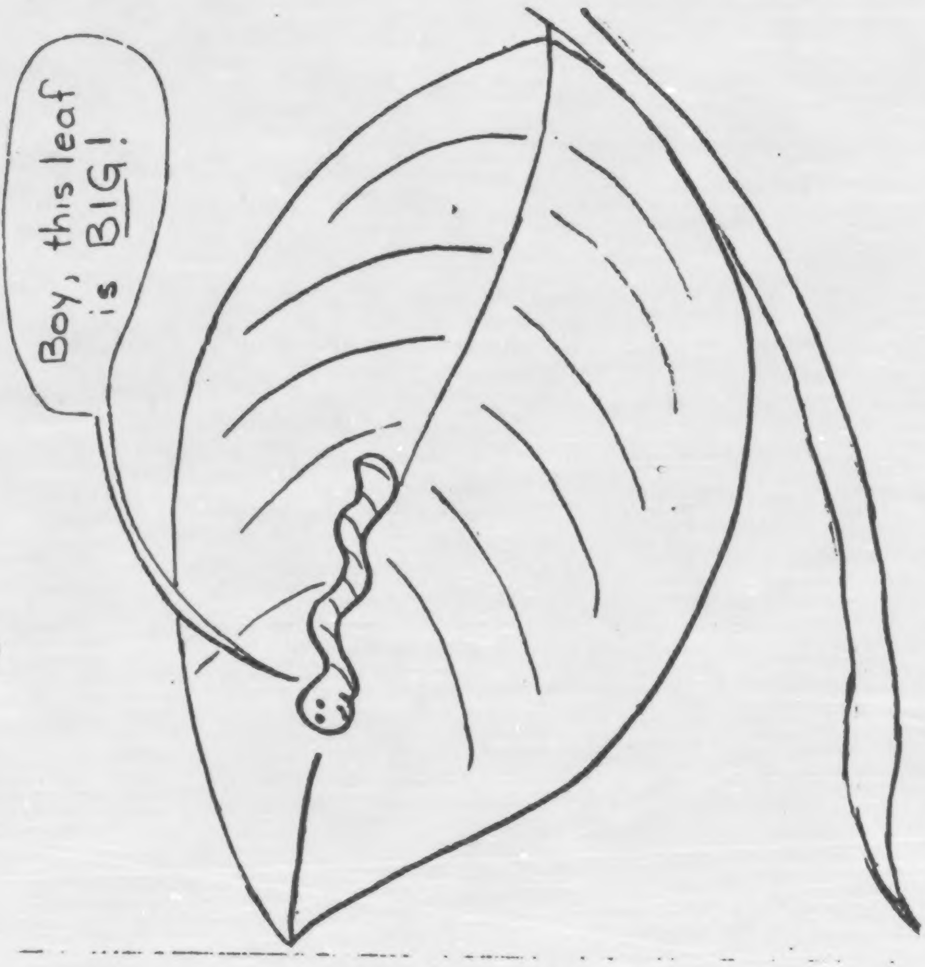
THE OLDEST HOUSE MOUSE WAS "HERCULES". HE LIVED TO BE 5 YEARS 11 MONTHS. HOW MANY MONTHS DID HE LIVE?

Longest Animal



THE LONGEST ANIMAL RECORDED IS THE RIBBON WORM. IT WAS FOUND IN THE ORTH SEA IN 1864 AND MEASURED 180 FEET LONG. IF THE WORM WAS CHOPPED INTO

Largest Leaf

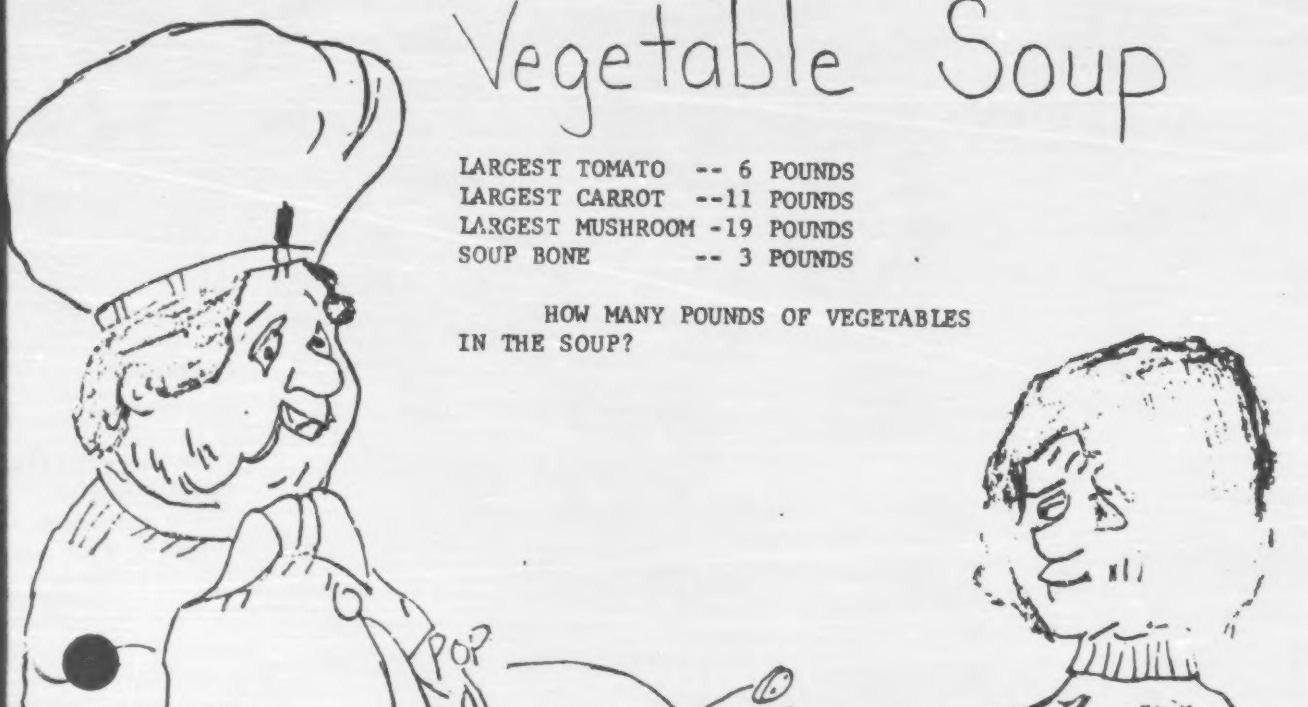

Boy, this leaf is BIG!

THE LARGEST LEAF WAS FOUND IN 1966 IN MALAYSIA. IT MEASURED ABOUT 10 FEET LONG AND 6 FEET WIDE. WHAT WAS THE AREA OF THE LEAF?

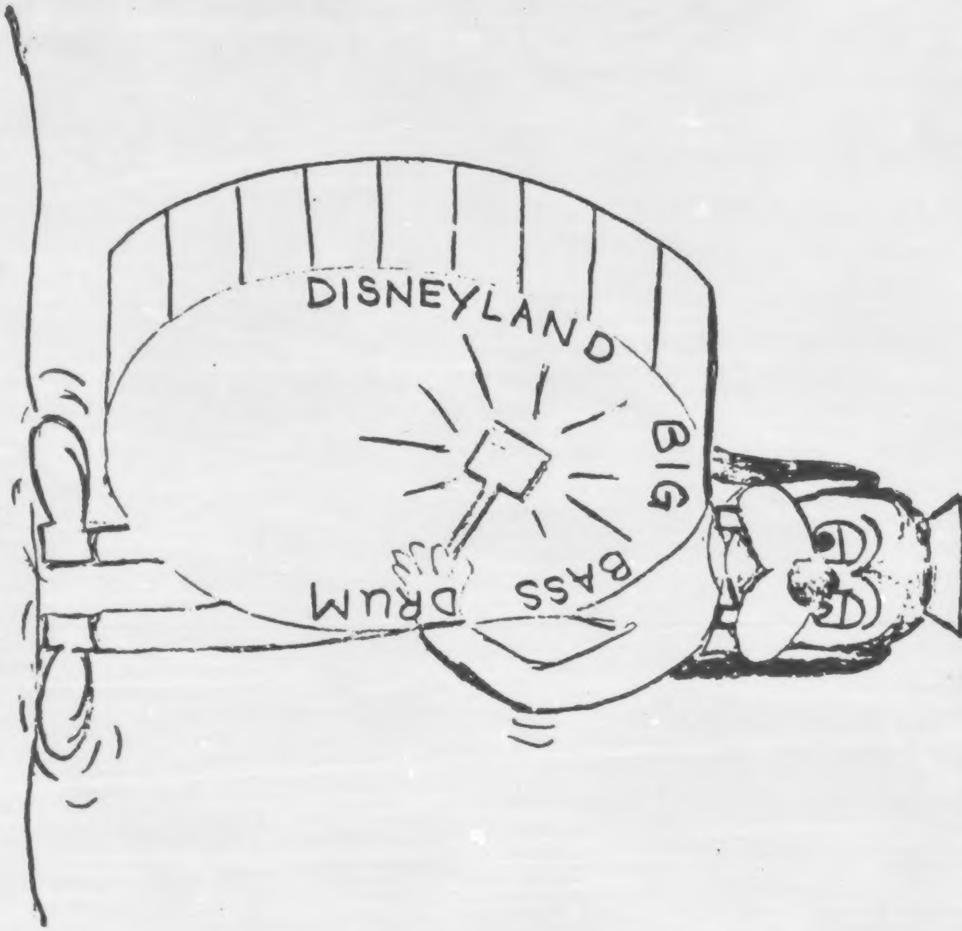
Vegetable Soup

LARGEST TOMATO	-- 6 POUNDS
LARGEST CARROT	--11 POUNDS
LARGEST MUSHROOM	-19 POUNDS
SOUP BONE	-- 3 POUNDS

HOW MANY POUNDS OF VEGETABLES IN THE SOUP?

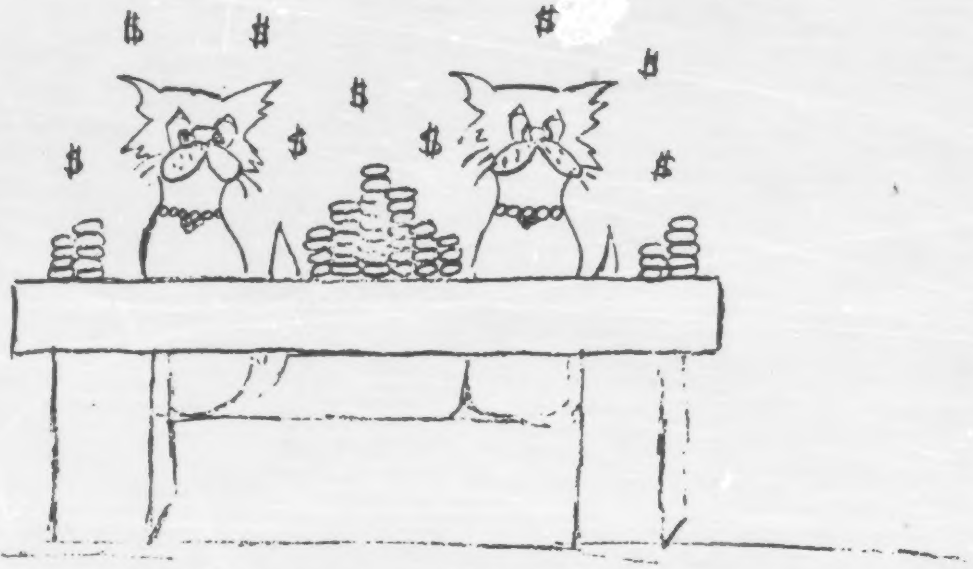


dum-de-dum-drum



THE LARGEST DRUM IN THE WORLD IS THE DISNEYLAND BIG BASS DRUM. IT HAS A DIAMETER OF 10 FEET 6 INCHES. HOW MANY INCHES LONG IS THE DIAMETER OF THE DRUM?

Riche$t Cat$



DR. GRIER OF CALIFORNIA DIED IN 1963. HE LEFT HIS ENTIRE ESTATE OF $415,000 TO HIS TWO PET CATS. HOW MUCH MONEY DID EACH CAT RECEIVE?

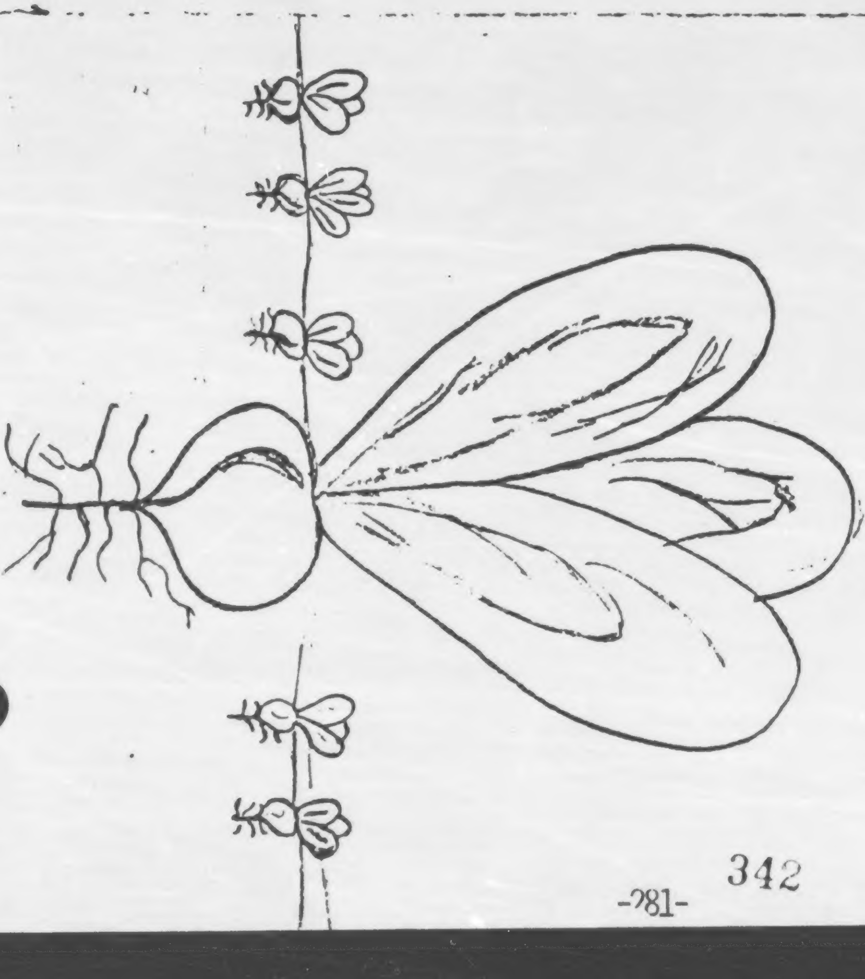
Hiccoughs

Hiccough! Hiccough! Hiccough! Hiccough! Hiccough!

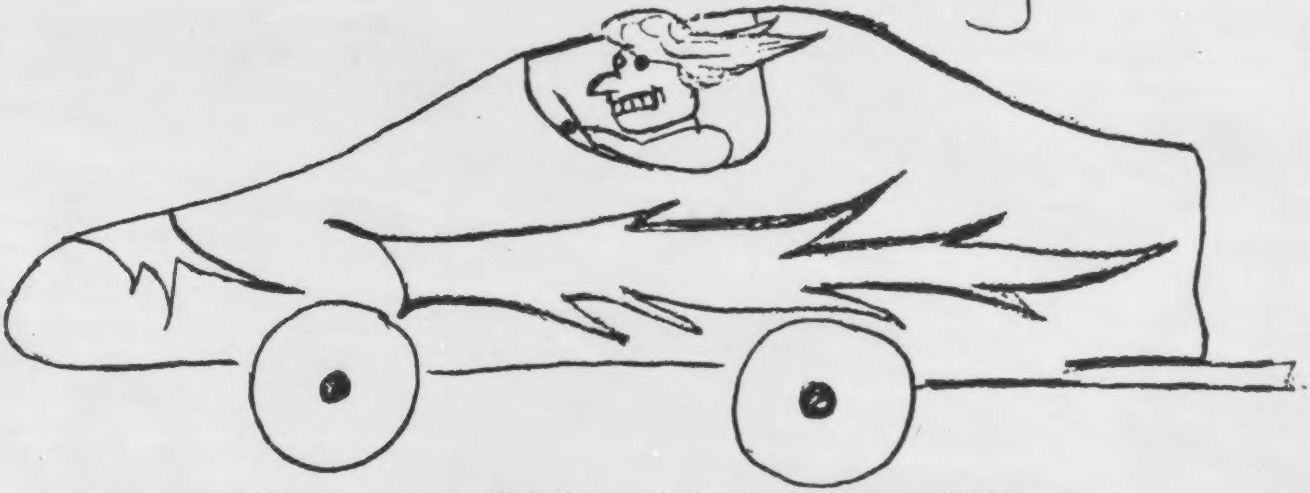
THE LONGEST RECORDED ATTACK OF HICCOUGHS STARTED IN 1922. CHARLES OSBORNE OF IOWA IS STILL HICCOUGHING TODAY. HOW MANY YEARS HAS HE BEEN HICCOUGHING?

Radish Remainder

The LARGEST RADISH WAS RAISED IN AUSTRALIA AND WEIGHED 25 POUNDS. IF 8 HUGE SALADS HAVE AN EQUAL PART OF THE RADISH, HOW MANY POUNDS ARE IN EACH SALAD AND HOW MUCH REMAINS?



Auto Racing



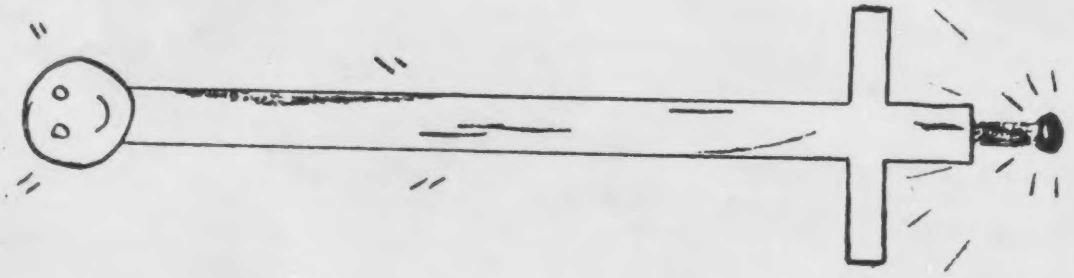
IN 1887 COUNT PHILLIPPE WON A RACE TRAVELING AT A SPEED OF 37 M.P.H. ON HIS STEAM QUADRICYCLE. IN 1970 WILLIAM YARBOROUGH WON A RACE TRAVELING AT AN AVERAGE SPEED OF 183 M.P.H. DRIVING A 1969 MERCURY. HOW MUCH FASTER DID YARBOROUGH TRAVEL?

Getting a Chill

chatter
chatter

THE "HUMAN POLAR BEAR", GUSTAVE BRICKNER, WENT SWIMMING WHEN THE TEMPERATURE OUTSIDE WAS -85° F. HOW MANY DEGREES BELOW FREEZING IS THIS TEMPERATURE, WHEN FREEZING IS 32°F?

Pogo Stick Jumping

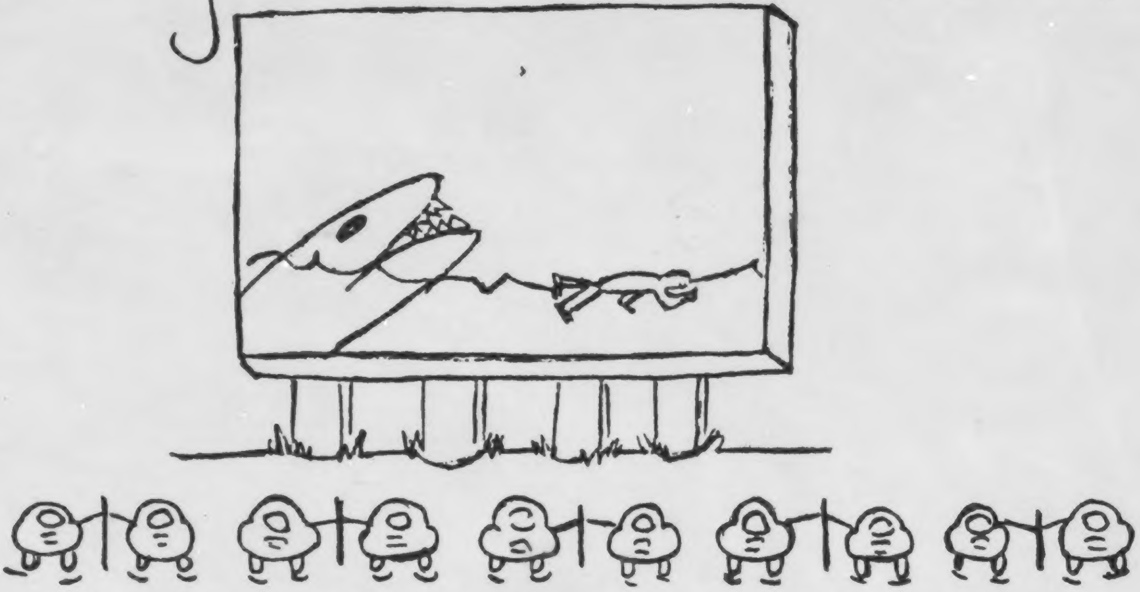


SCOTT SPENCER JUMPS UP AND DOWN ON A POGO STICK ABOUT 6,250 TIMES PER HOUR, FOR 16 HOURS. HOW MANY JUMPS DID HE MAKE IN ALL?

Eat 'em Up

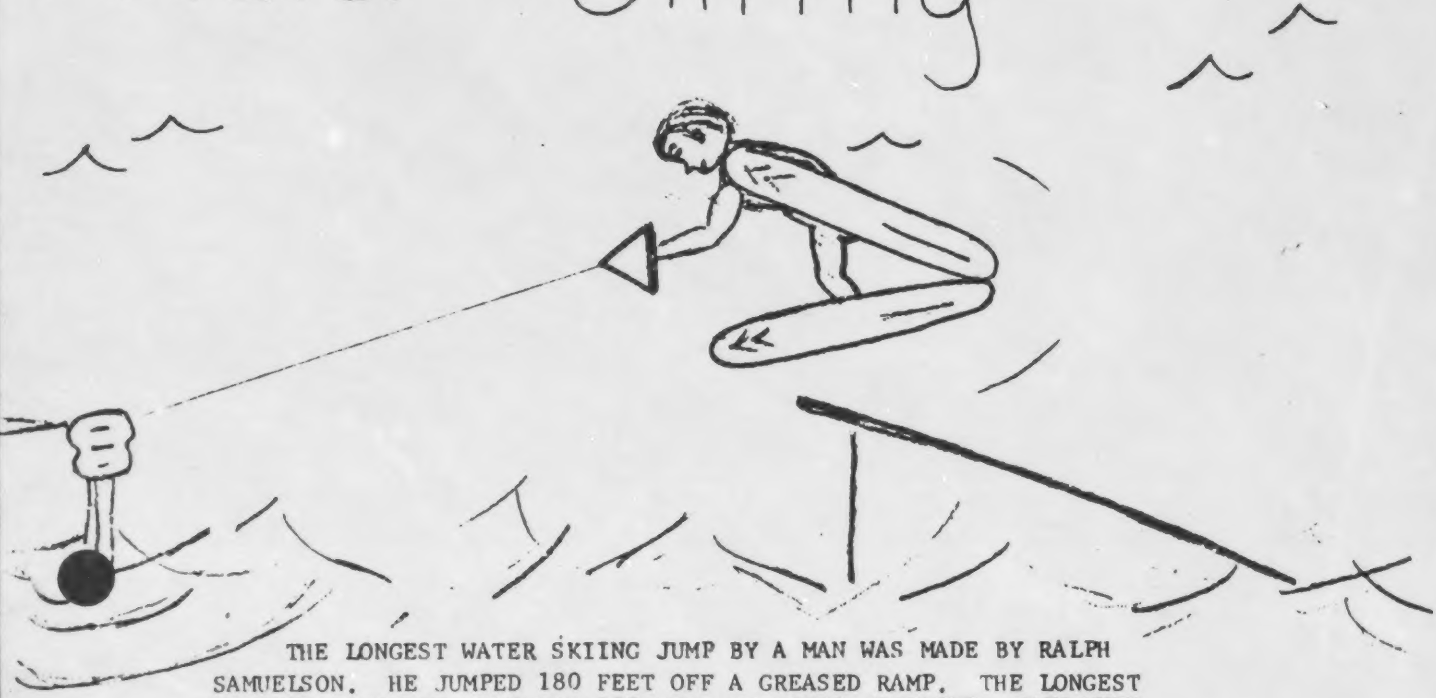
MICKY RIGDON AT FAT CITY, METAIRIE, LOUISIANA, ATE ABOUT 210 OYSTERS IN FIVE MINUTES. HOW MANY OYSTERS COULD HE EAT IN ONE MINUTE?

Largest Drive-in



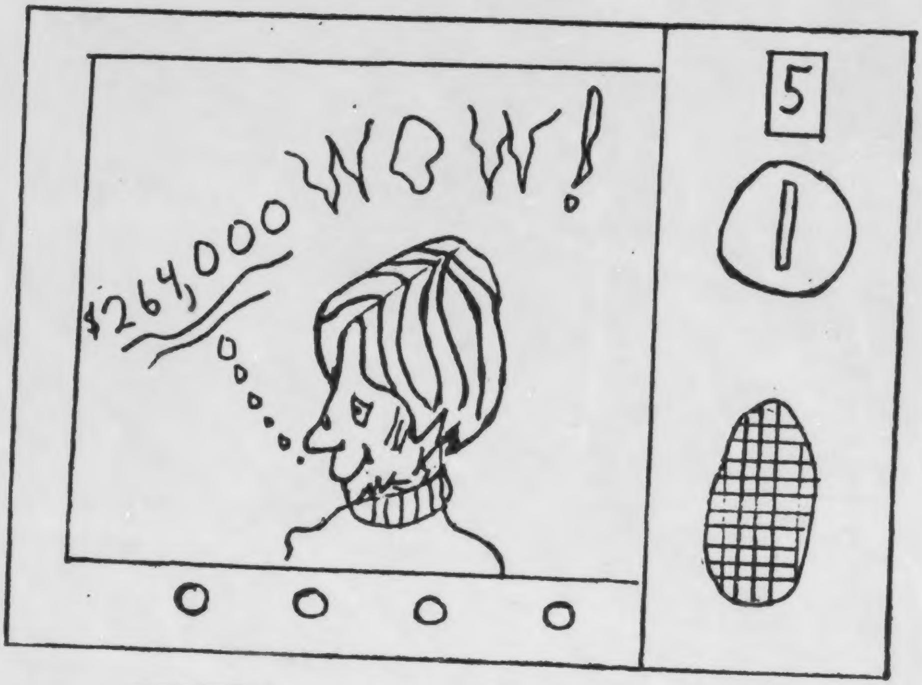
THE WORLD'S LARGEST DRIVE-IN CINEMA HAS SPACE TO PARK 4,000 CARS. IF THE NIGHT "JAWS" WAS PLAYING, 2,867 CARS CAME IN, HOW MANY SPACES WOULD BE EMPTY?

Water Skiing



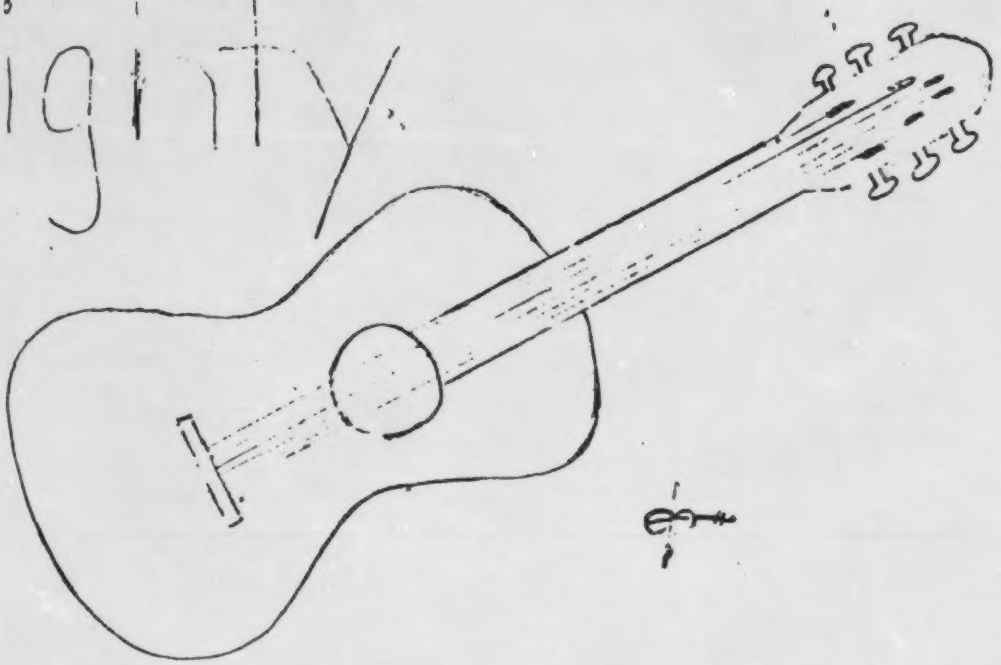
THE LONGEST WATER SKIING JUMP BY A MAN WAS MADE BY RALPH SAMUELSON. HE JUMPED 180 FEET OFF A GREASED RAMP. THE LONGEST WOMEN"S RECORDED JUMP WAS 128 FEET BY LINDA GLIDDENS. HOW MUCH FARTHER DID THE MAN JUMP?

THE GREATEST AMOUNT WON BY AN INDIVIDUAL IN T.V. PRIZES WAS $264,000 ON A QUIZ PROGRAM. OF THIS MONEY HE HAD TO PAY OUT $155,000 IN TAXES. AFTER THE TAXES WERE TAKEN OUT, HOW MUCH [illegible] DID HE HAVE LEFT?



T.V. Prize

Mighty Music



The longest guitar ever made is 8 feet 10 inches long and the smallest violin is 2 inches long. If they were laid end to end, how long would they be together?

Fantastic Fruit

The heaviest lemon was grown in California in 1977 and weighed 6 ½ pounds. The same year the heaviest orange was grown in Arizona which weighed 3 3/4 pounds. How much did the fruit weigh in all?

Green Giant

The fastest growing grass is named "Callie", and it grows 6 inches a day. How many inches would the grass grow in 14 days?

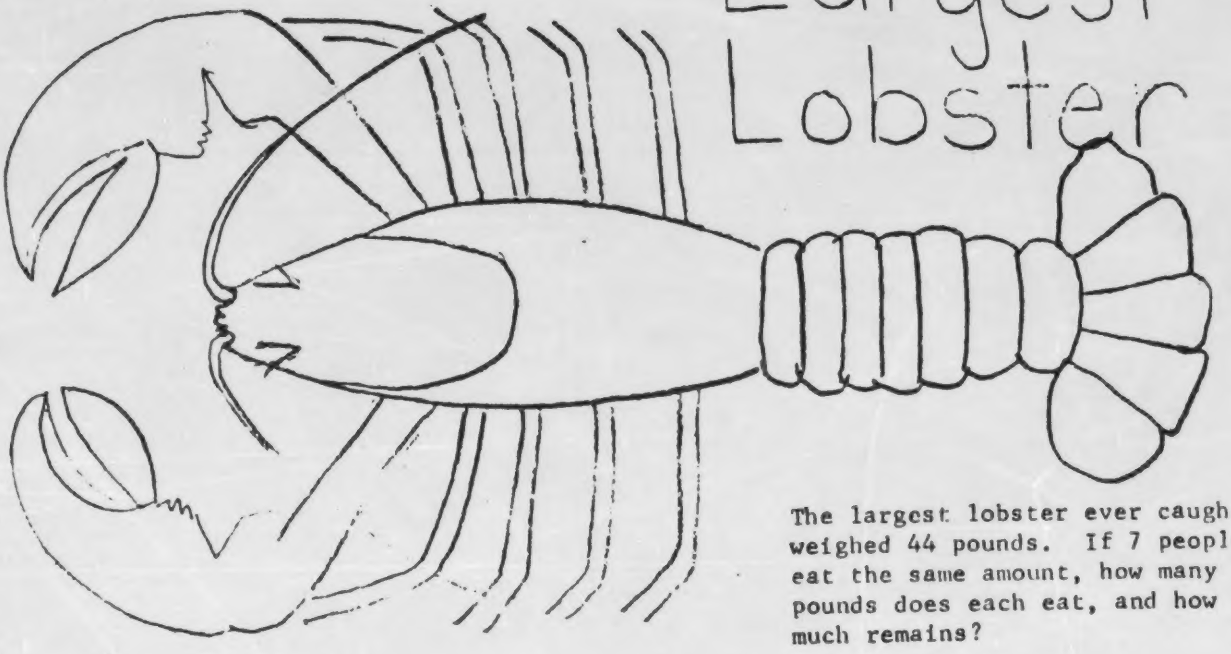
Monster Mushroom

The heaviest mushroom was raised in 1920 and weighed 18 ½ pounds. If there had been 3 mushrooms, How much would they weigh in all?

Tomato Split

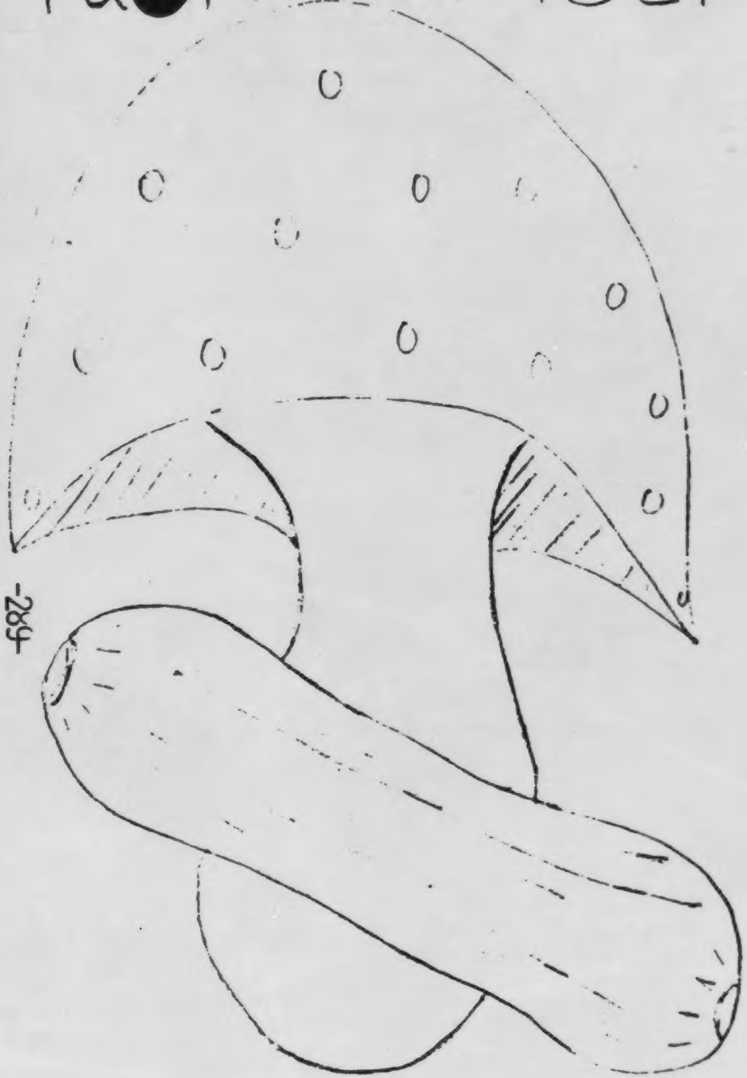
The heaviest Tomato was grown in New Jersey and weighed 6 2/4 pounds. If the tomato was divided equally to make 2 salads, how many pounds would be in each?

Largest Lobster



The largest lobster ever caught weighed 44 pounds. If 7 people eat the same amount, how many pounds does each eat, and how much remains?

Mush-cumber



The heaviest mushroom weighed 18 3/4 pounds and
the heaviest cucumber weighed 12 3/4 pounds.
How much did they weigh in all?

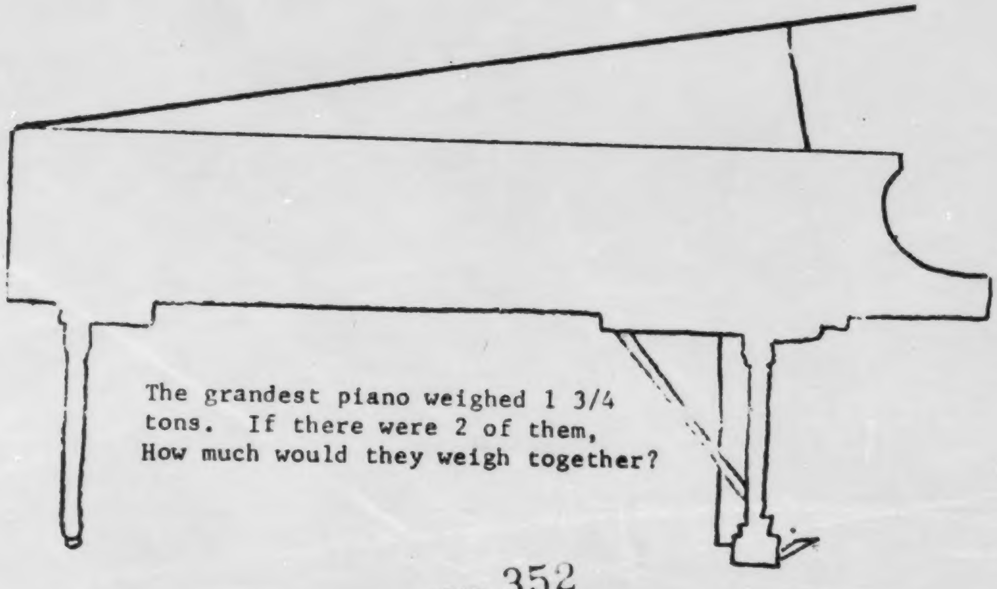
Pine-tato

The heaviest pineapple weighed 16 ½ pounds and
the heaviest sweet potato weighed 22 ½ pounds.
How much heavier was the sweet potato?

Egg Delight

The largest chocolate egg ever made weighed 4,484 pounds. If it was divided into 4 equal parts, how much would each part weigh?

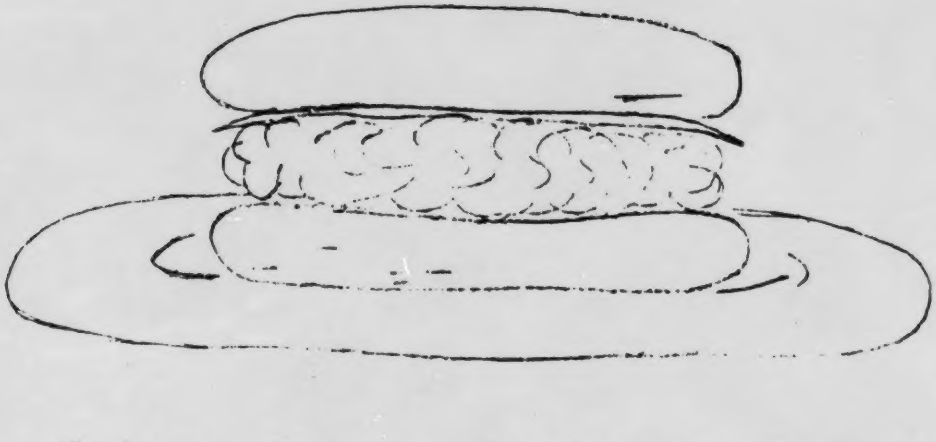
Tuneful Tonnage



The grandest piano weighed 1 3/4 tons. If there were 2 of them, How much would they weigh together?

The highest price ever paid for a pig was $38,000 and for a farm horse was $47,500. How much more did the horse cost?

Pizza-Burger

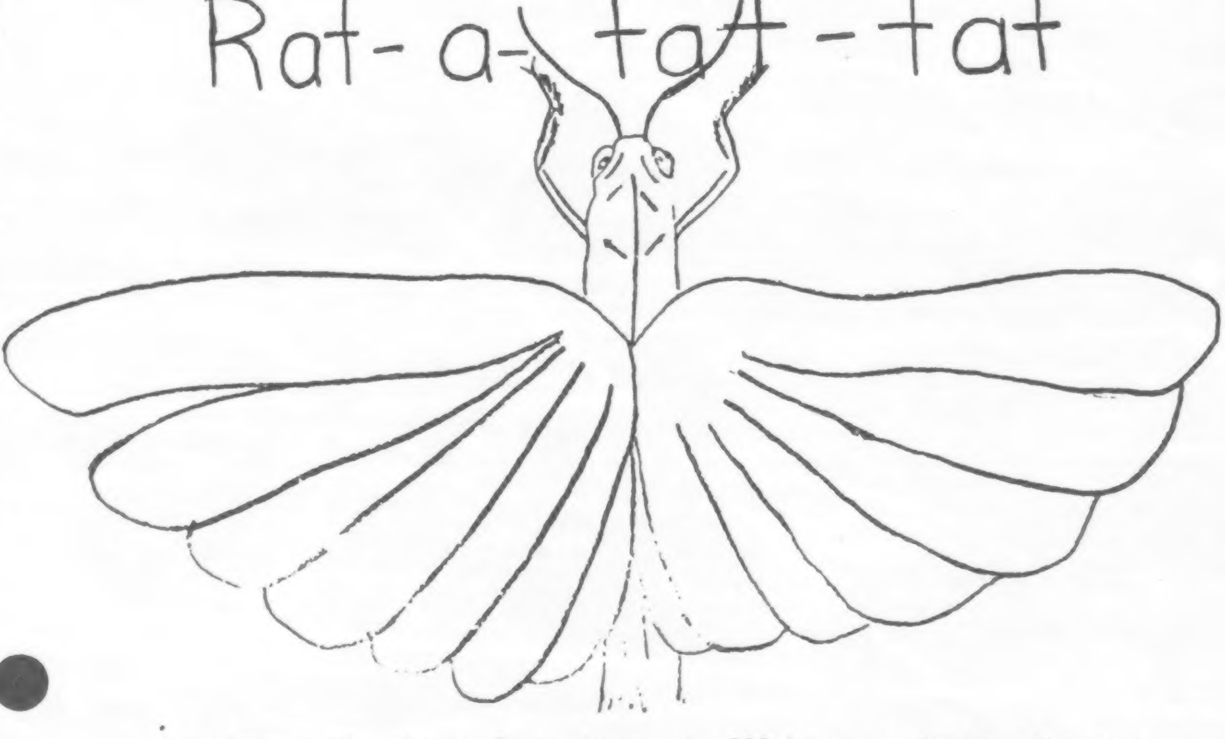


The largest hamburger ever made weighed 2,859 pounds and the largest pizza weighed 4,598 pounds. How many pounds did they weigh in all?

Leaping Lena

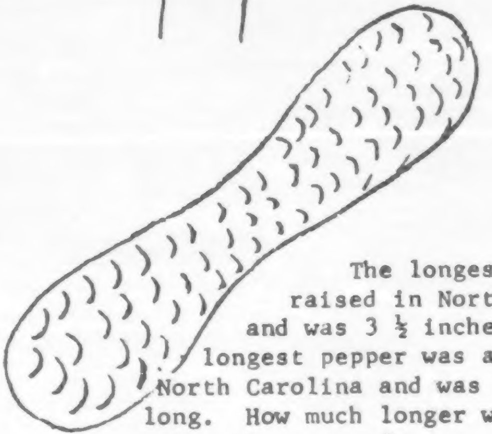
The champion long jumper flea jumped 13 inches. If it jumps 6 times how many inches will it jump?

Rat-a-tat-tat

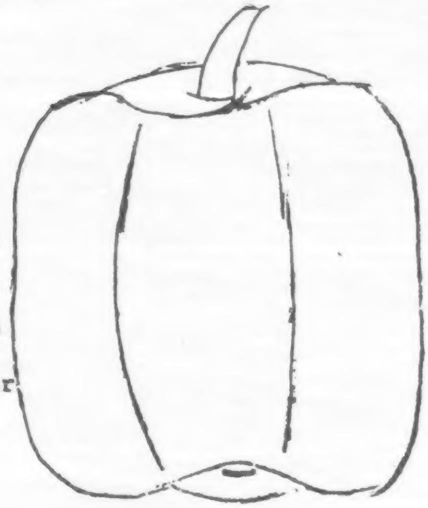


The slowest wing beat of any insect is 300 beats a minute. How many beats would there be in 4 minutes?

Pepper-nut



The longest peanut was raised in North Carolina and was 3 ½ inches long. The longest pepper was also grown in North Carolina and was 13 ½ inches long. How much longer was the pepper than the peanut?



ANSWER KEY FOR ACTIVITY PACK

1. Auto Racing	146 mph
2. Dog Population	35,500,000 dogs
3. $ $ $	$9,500
4. dum-de-dum-drum	126 inches
5. Eat 'em up	42 oysters
6. Egg Delight	1,121 pounds
7. Fantastic Fruit	10 pounds
8. Getting a Chill	117 degrees
9. Green Giant	84 inches
10. Hiccoughs	Answer will vary.
11. House Mouse	71 months
12. Largest Drive-in	1,133 spaces
13. Largest Leaf	60 square feet
14. Largest Lobster	6 pounds remainder 2
15. Leaping Lena	78 inches
16. Longest Animal	30 feet
17. Loudest Insect	29,600 sounds
18. Many-Legged Creature	354 legs
19. Many, Many-Legged Creature	355 pairs of legs
20. Mighty Music	9 feet
21. Monster Mushroom	54 3/4 pounds
22. Mush-cumber	31 2/4 pounds
23. Oldest Dog	353 months
24. Pepper-nut	10 inches
25. Pine-tato	6 pounds
26. Pizza-burger	$7,456

ANSWER KEY (Page 2)

27.	Pogo Stick Jumping	100,000 jumps
28.	Radish Remainder	3 pounds remainder 1
29.	Tat-a-tat-tat	1,200 beats
30.	Richest Cat	$207,500
31.	Starfish	53.55 inches
32.	Tomato Split	3¼ pounds
33.	Tuneful Tonnage	3 2/4 pounds
34.	T.V. Prize	$109,000
35.	Vegetable Soup	39 pounds
36.	Water Skiing	52 feet

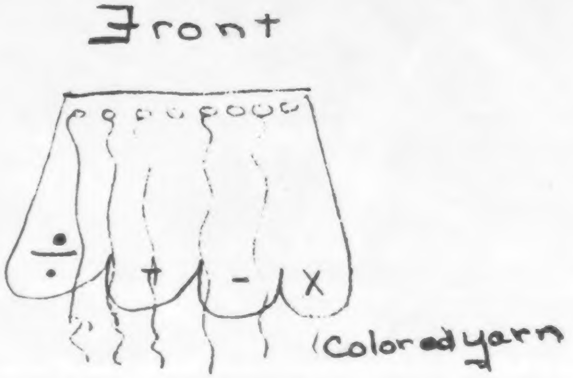
SILLY STRINGS

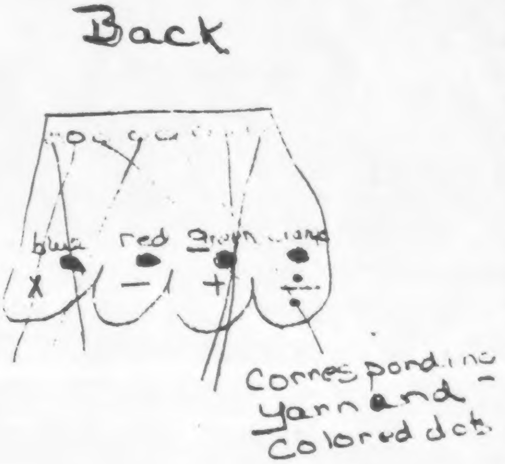
Objective: To provide practice recognizing which operation to use in problem solving.

Activity: For 1 or 2 children

Materials: Colored yarn with corresponding colored index cards. Each card has a story problem on it.

One large oak=tag card with the four operation signs on it. On the back of the large card are the same symbols with colored circles to match the yearn (for self-correction).





EXAMPLE COLORED INDEX CARDS

RED CARD
John had 5 apples he gave # AWAY. How many Left?

BLUE CARD
Each child has 5 dollars. There are 8 children. How much money altogether?

Procedure:

1. Children are to pick a card.
2. After reading the problem the child takes the corresponding colored yarn and places it in the slot under the operation the child feels would solve the problem.
3. When the child has completed eight problems, the child flips the board over to see if his responses are correct.

NO-COOK CHOCOLATE COOKIES

Objective: To provide practice in problem solving using fractions.

Activity: For any number of students

Materials: Recipe

Procedure: Discuss receipe and answer questions

NOTE: Actually make the recipe either halfing, doubling or tripling the amounts.

NO-COOK CHOCOLATE COOKIES

1/4 cup butter or margarine, melted
2/3 cup cocoa
dash salt
2/3 cup flaked coconut

2/4 cup white corn syrup
1 cup sifted confectioners' sugar
1 cup coarsely chopped nuts
6 oz. candy-coated puffed wheat cereal
(4½ cups)

Directions:

In large bowl, blend butter with corn syrup, cocoa, sugar, salt Add nuts, coconut, cereal; with large fork, stir mixture until cereal is well coated. Pack this mixture firmly into greased 13" x 9" x 2" pan; refrigerate several hours, or until firm. Cut into squares. Makes 3 to 4 dozen.

1. How much flaked coconut is needed?
2. How much cocoa would be needed if you double (twice as much) the recipe?
3. How much butter or margarine would be needed if the receipe was tripled (three times as much)?
4. If you made half the receipe how much confectioners' sugar would you need?
5. If you doubled the receipe, how much would it make?
6. How many cups of cereal would be needed if you doubled the receipe?
7. How much more white corn syrup is needed than butter?
8. How much more cocoa is needed than nuts?

PS-A-S-11-D

MR. STEAK MENU

Objective: To provide practice in the use of a menu with word problems using addition, subtraction, and multiplication.

Activity: For any number

Materials: Mr. Steak Menu

Procedure: Using the menu ask the following questions:

1. What costs the most on the menu?
2. What costs the least?
3. Scott bought a steak dinner and chocolate milk for lunch. How much did his lunch cost?
4. How much change would Scott get back from his lunch if he had $4.00?
5. How much more is a steak dinner than a ham dinner?
6. How much would three chicken dinners cost?
7. If you wanted to buy a dinner and soft drink and only had $2.04, what dinner could you buy?
8. How much would a hot dog, steak dinner, and two milks cost?

Extention: Add sales tax and gratuity to cost of meals

CHILDREN'S MENU

For ages 12 and under

Kids, take this menu home and have fun with the games on the back!

STEAK DINNER

CHILD'S SIZE STEAK SERVED WITH POTATOES

$2.59

MR. STEAK BURGER

SERVED WITH A GENEROUS PORTION OF POTATOES

$1.19

CHICKEN DINNER

BONELESS BREAST OF BATTER DIPT CHICKEN SERVED WITH POTATOES AND FRUIT

$1.49

HAM STEAK

A SLICE OF MOUTHWATERING HAM SERVED WITH POTATOES AND PINEAPPLE RING

$1.59

FISH FRY

MR. STEAK'S FAMOUS BATTER DIPT FISH SERVED WITH TARTAR SAUCE AND POTATOES

$1.19

HOT DO

A TASTY HOT DO
SERVED WITH
AND POTATOE

$1.09

BEVERAGES

- MILK $.40
- CHOCOLATE MILK $.40
- SOFT DRINKS $.45
- HOT CHOCOLATE $.40

Mr. Stea
AMERICA'S STEAK EXP

THE FAST-FASTER-FASTEST GAME

Objective: For the children to create and solve their own subtraction story problems

Activity: For 2,4,6, or 8 players

Materials: 12 3" x 2" index cards. Each card should have one of the following groups of terms on them.

Also scrap paper should be provided.

big
bigger
biggest

tall
taller
tallest

wide
wider
widest

short
shorter
shortest

small
smaller
smallest

high
higher
highest

long
longer
longest

thick
thicker
thickest

fast
faster
fastest

heavy
heavier
heaviest

thin
thinner
thinnest

fat
fatter
fattest

Procedure:

1. Cards are placed face down on a table.
2. Each child picks a card.
3. Working with the child on their right they each take a turn orally making up a subtraction problem using words on their card.
4. The partner solves the problem, and if correct makes up his own problem using his card. (Scrap paper is allowed.)
5. Score 1 point for each correct answer.
6. Once the card has been used, pick another and continue the same process.
7. First child with 7 points wins.

PS

TEMP-O-WISE

Objective: To practice problem solving involving the use of temperature

Activity: class

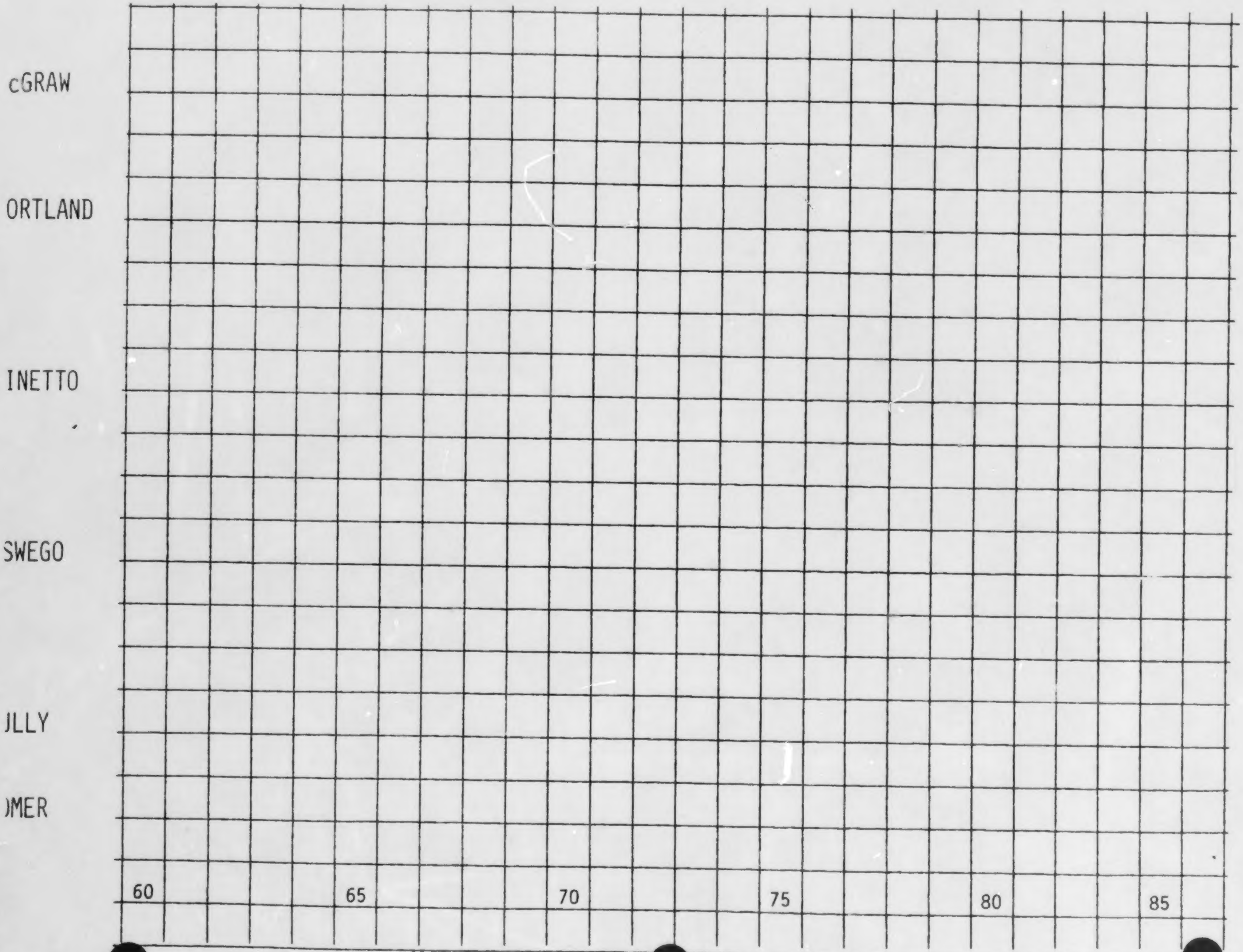
Materials: Graph board (see diagram)
colored ribbon
packet of colored cards to match ribbons
scrap paper

Procedure:

1. Teacher pre=sets graph, placing ribbons on various spots in grid slits.
2. Each child is given a packet containing one colored card per colored ribbon.
3. Teacher asks questions (see example questions)
4. Children figure out the answer and hold up the colored card that answers the question.

SAMPLE QUESTIONS FOR TEMP-O-WISE

1. Which town had the highest temperature?
2. Which town had the lowest temperature?
3. What is the difference between the highest and lowest temperature?
4. If it was 25° cooler in Homer, what would the temperature be?
5. What two towns are the closest to 78°?
6. What are the three lowest temperatures?
7. If it was 17° warmer in Cortland what would the temperature be?


cGRAW
ORTLAND
INETTO
SWEGO
JLLY
)MER
60
65
70
75
80
85

MY PROBLEM SOLVING ANIMAL

Objective: To provide an experience in writing and solving "story" problems.

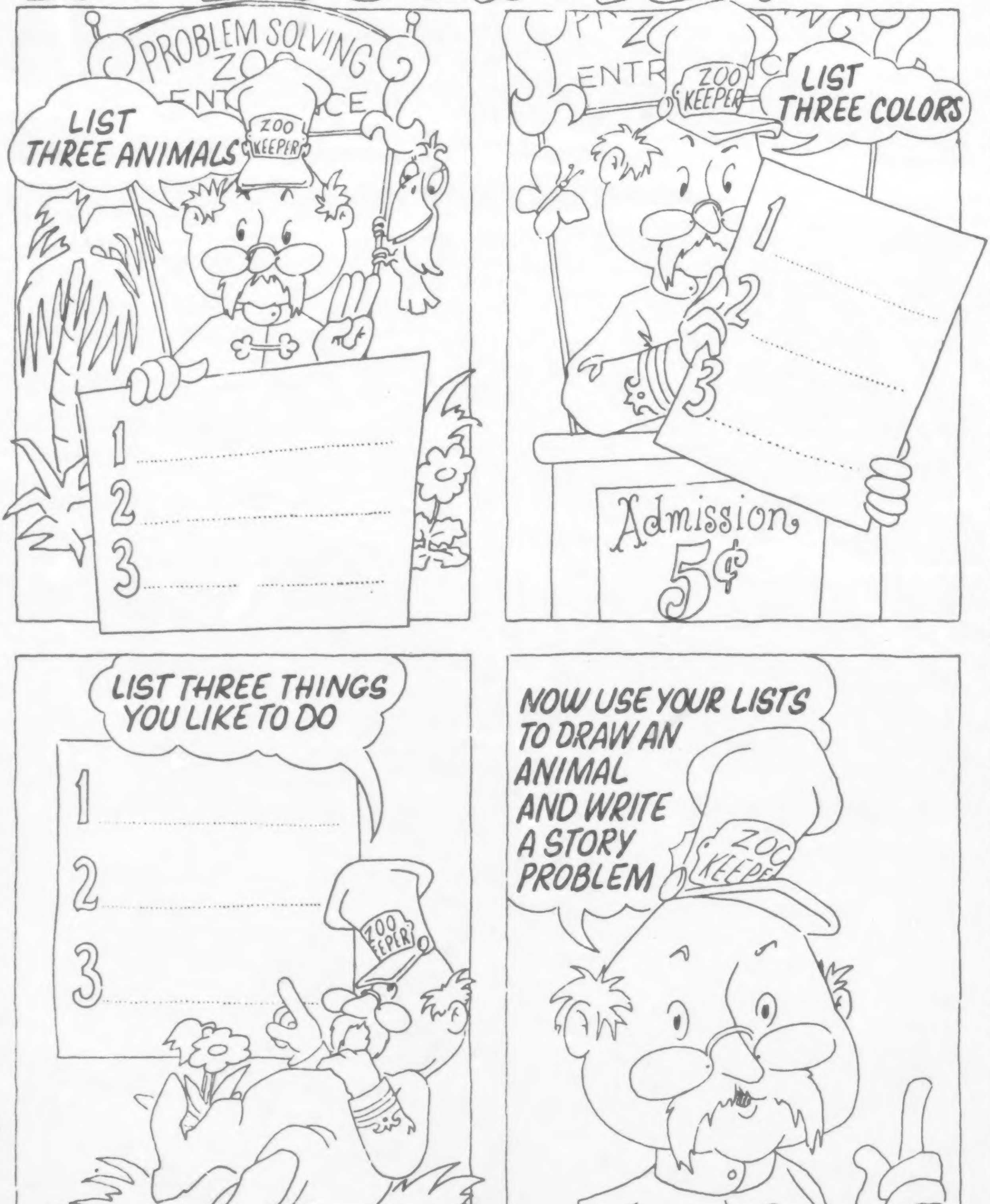
Activity: For 1 or small group to be shared with a group

Materials: Copy of three worksheets for each child

Procedure:

1. Pass out "The Zookeeper" worksheet and have each child fill in the spaces.
2. Then pass out the worksheet with the story problem examples. Go over the problems with the class, explaining what is going to be expected of them when they are completing "My Problem - Solving Animal" worksheet.
3. Pass out "My Problem-Solving Animal" worksheet for children to complete.
4. After children finish story problems and pictures, exchange to solve problems.

The ZOO KEEPER


PROBLEM SOLVING ZOO ENTRANCE
LIST THREE ANIMALS
ZOO KEEPER
1
2
3
ZOO ENTRANCE
ZOO KEEPER
LIST THREE COLORS
1
2
3
Admission 5¢
LIST THREE THINGS YOU LIKE TO DO
1
2
3
ZOO KEEPER
NOW USE YOUR LISTS TO DRAW AN ANIMAL AND WRITE A STORY PROBLEM
ZOO KEEPER

From the *Arithmetic Teacher*

PROBLEM-SOLVING ANIMALS

I'm fe-fe
I'm very colorful. I sing
If I make 3 records
every month, how many
records will I have
made in 39 years?

I'm kadowl
I sat 3 hours yesterday.
I sit 2 hours today.
I will sit 1 hour
tomorrow. How long
is that?

I'm reademeter.
I read 3 books
a day. How many
books do I read
in a week?

My Problem-Solving Animal

MY STORY PROBLEM: ____

____

____

____

Author ______________________________________ Age ____

Illustrator __________________________________ Age ____

School ____

From the *Arithmetic Teacher*

ALL GRAPH WORKSHEETS

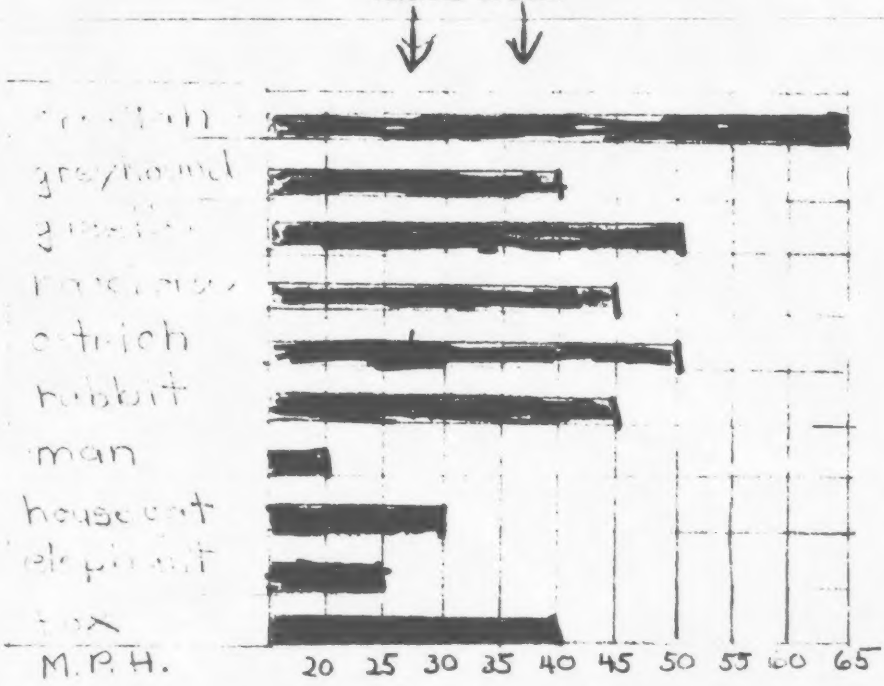
Objective: To provide practice in interpreting data on a graph and applying this data in verbal problems.

Activity: For one student or entire class

Materials: A ditto of the graph and problems for each child.
Answer Key

Procedure: Distribute worksheet and follow directions.

ANIMAL SPEEDS



1. Which animal runs the fastest? ________________

2. Which is the slowest? __________________

3. Ho much faster is the fox than man? ___________

4. How much slower is the rabbit than the cheetah? _________________

5. If the ostrich, rabbit, man and housecat were in a race, which would win? ______________ Which would lose? ____________ How much faster is the winner than the loser? _______________

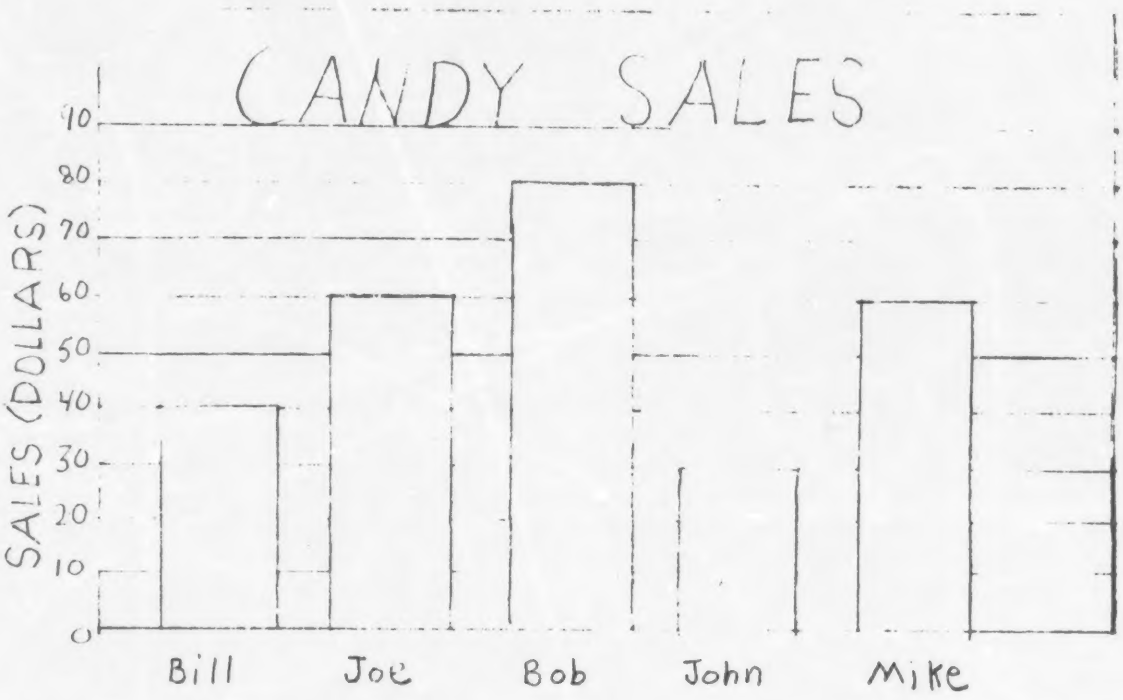
6. Name the three fastest animals. ________________, ______________, and ______________________.

7. Name the two slowest animals.________________ and _______________.

8. All of the above animals were in a race. During the race, the cheetah, ostrich, gazelle and rabbit ran into each other. Now which animal has the best chance of winning? _________________

CANDY SALES

Bill, Joe, Bob, John and Mike were selling candy to earn money to buy new baseball uniforms. They sold candy as shown in the graph below.



1. Which of the boys sold the most candy? ____________________
   How much did he sell? ____________________

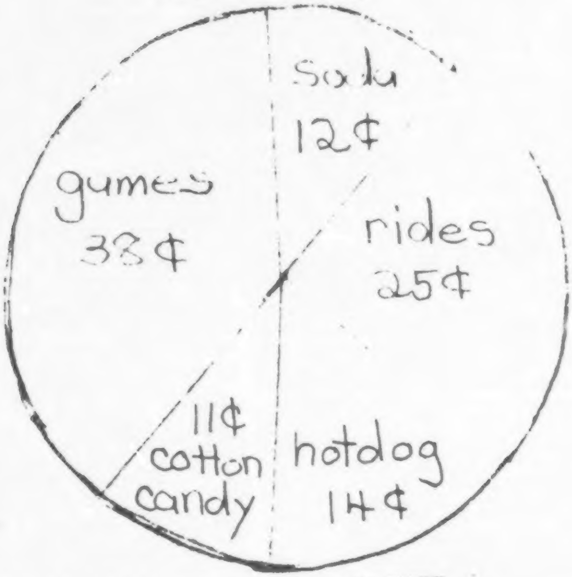
2. Which two boys sold the least amount of candy? ____________
   How much did they sell? ____________________

3. How much more did Joe sell than John? ____________________

4. Which two boys sold the same amount of candy? ____________
   and ____________________. How much did they sell? __________

5. What was the total amount collected to buy baseball uniforms?
   ____

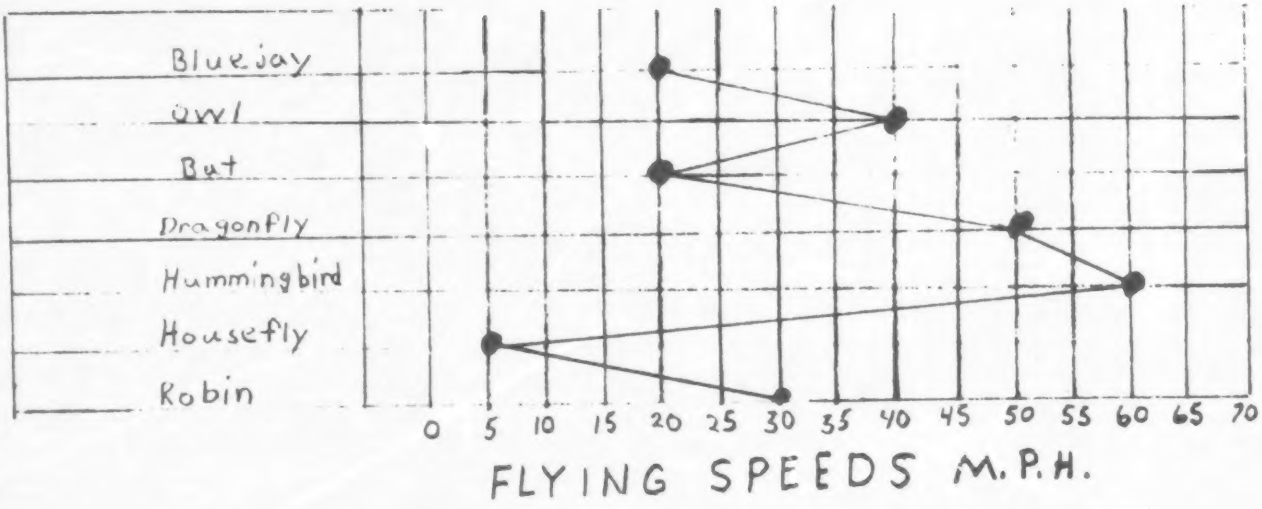
CARNIVAL CAPER



Joey went to a carnival and spent the money shown on the above graph.

1. How much did Joey spend on soda? ________________
2. What did Joey spend the most on? ________________
3. What did Joey spend the least amount on? ________________
4. How much did Joey spend on the rides and games together? ________________
5. How much more did Joey spen on the rides than on the cotton candy? ________________
6. Joey spent $1.00 at the carnival. Half of his money was spent on three things. What three things were these? ________________, ________________, and ________________.
7. The first thing Joey bought was a hotdog. He paid for it with $1.00. How much change did he receive? ____________
8. After Joey bought the hotdog, soda, and cotton candy, how much money did he have left? ________________

FLYING SPEEDS



1. Which of the above has the fastest flying speed? ____________

2. Which of the above is the slowest? ____________

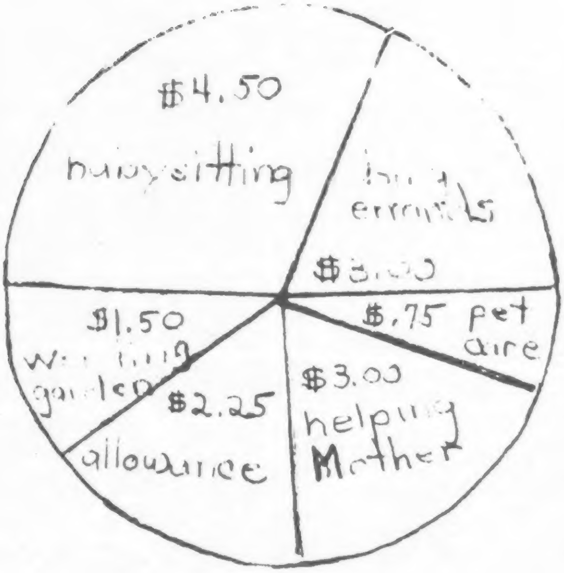
3. Which of the above have the same flying speed? ____________

4. What is the combined speed of the two fastest flying animals? ____________

5. If the house fly flies 5 miles in an hour, how far will it fly in 4 hours? ____________

6. What is the difference in speed between the hummingbird and bat? ____________

SUSAN SAVES



Susan earned $15.00 last summer working in her neighborhood. The graph shows how she earned her money.

1. How did she earn the most money? ________________

2. How did she earn the least amount? ______________

3. How much did Susan earn babysitting and taking care of pets? ____________

4. How much more allowance did Susan receive than she earned weeding gardens? ______________

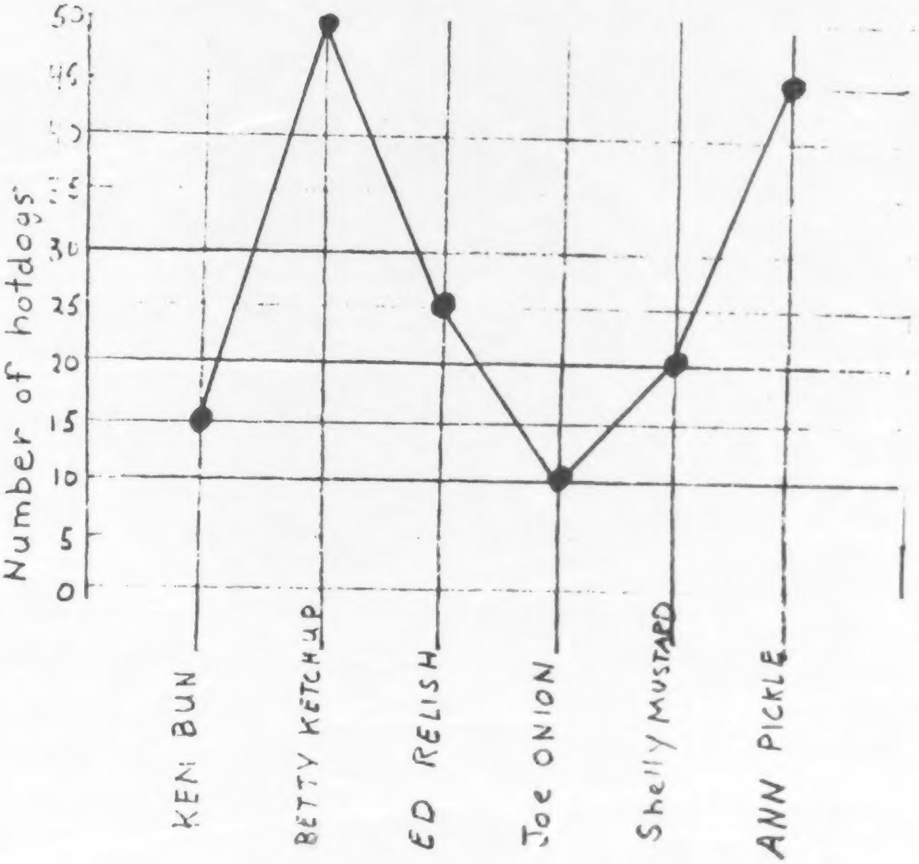
5. How much money did Susan earn helping mother, doing errands, and babysitting? ______________

6. After Susan earned her money, she bought a new game which cost $4.89. How much change did she receive? ________________

7. After that she bought a skirt for $8.50. She put the rest of her money in the bank. How much money did she put in the bank? ________________

HOT DOG EATING CONTEST

At the National Hot Dog Eating Contest held in Mustard, NY, the following contestants listed on the graph below, ate the represented number of hot dogs in one hour.



1. Who ate the least number of hot dogs? ______________
2. Altogether the boys ate how many hot dogs? ____________
3. Altogether the girls ate how many hot dogs? ___________
4. The girls ate how many more hot dogs than the boys? ___________
5. If Ken Bun can eat 15 hot dogs in one hour, how many hot dogs can he eat in six hours? _______________
6. What was the total amount of hot dogs eaten at the contest? ____________

ESTIMATE MONEY

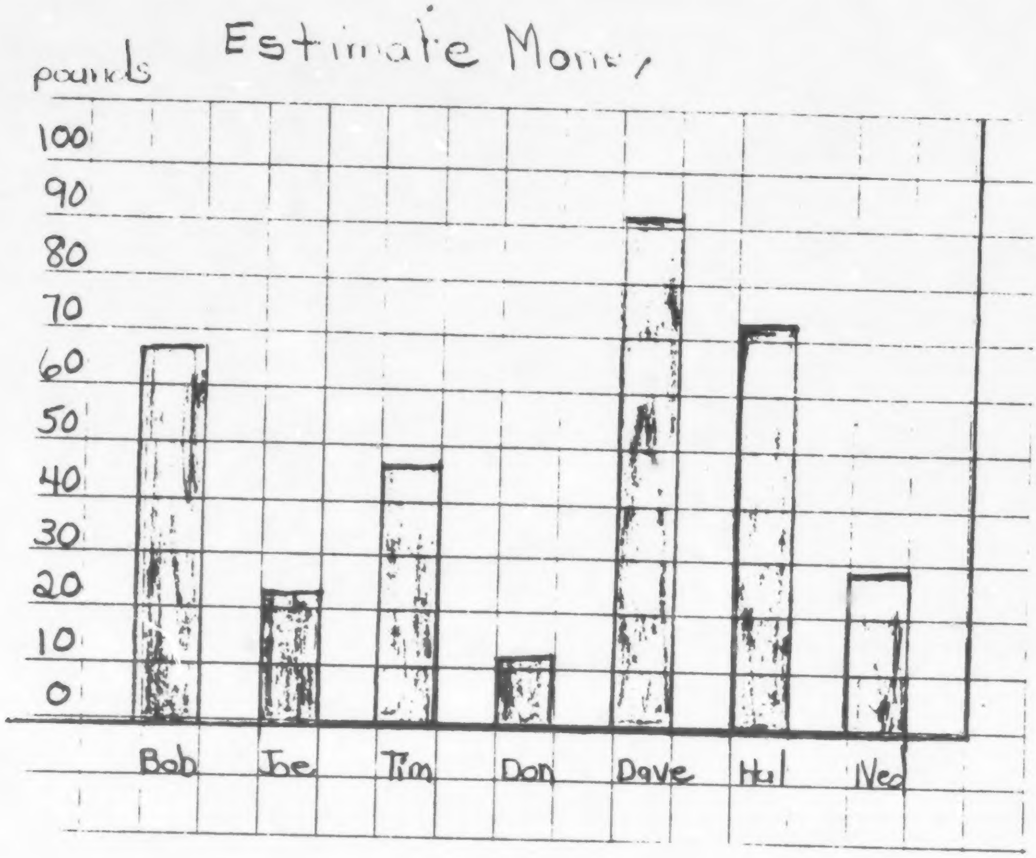
Objective: To provide practice using estimating in problem solving

Activity: For any number of children

Materials: A copy of the graph and problems for each child

Procedure: Distribute a copy of the graph and problems to each child. Children can work alone or as a group.

Below is a graph showing the number of pounds of old newspaper the scouts collected for recycling. Answer the problems estimating to the nearest ten.



ANSWER TO THE NEAREST TEN

1. Ned collected about __________ pounds.

2. Who collected the most? ____________

3. Bob collected about ___________ pounds.

4. Together, Dave and Hal collected about _________ pounds.

5. Dave collected about ______ more pounds than Dan.

6. The three scouts who collected the most collected about __________ pounds all together.

7. The three scouts who collected the smallest amount collected about ________ pounds.

8. About how many pounds of paper did the entire scout troop collect? ______________

9. If they received 15¢ for each 10 pounds, about how much money did they receive? _________________

ANSWER KEY FOR GRAPHS

Animal Speeds

1. Cheetah
2. man
3. 20 mph
4. 20 mph
5. ostrich, man, 3o mph
6. cheetah, gazelle, ostrich
7. man, elephant
8. race horse

Carnival Caper

1. 12¢
2. games
3. cotton candy
4. 63¢
5. 14¢
6. rides, hot dog, cotton candy
7. 86¢
8. 63¢

Susan Saves

1. babysitting
2. pet care
3. $5.25
4. 75¢
5. $10.50
6. $10.11
7. $1.61

Candy Sales

1. Bob - $80
2. John $30; Bill $40
3. $30
4. Joe and Mike - $60
5. $270

Flying Speeds

1. hummingbird
2. housefly
3. bluejay, bat
4. 110 mph
5. 20 miles
6. 40 mph

Hot Dog Eating Contest

1. Joe Onion
2. 50 hot dogs
3. 115 hot dogs
4. 65 hot dogs
5. 90 hot dogs
6. 165 hot dogs

Estimate Money

1. 30 pounds
2. Dave
3. 70 pounds
4. 160 pounds
5. 80 pounds
6. 230 pounds
7. 60 pounds
8. 340 pounds
9. $5.10

PS-A-S-11-D

MAGIC MEASUREMENT

Objective:	To provide practice in problem solving using measurement
Activity:	For small group or entire class
Materials:	Ditto of Problems
Procedure:	Distribute ditto to each child participating in activity

MAGIC MEASUREMENT

1. If Mary has 66 inches of ribbon, she will have how many feet of ribbon?

2. The store sells material by the yard. If you buy 5 1/3 yards of material, how many feet would you have? How many inches will this be?

3. If you need 6 inches of ribbon for each doll you are making, and you make 6 dolls, how many inches of ribbon will you need? How many feet will the be?

4. Tom and Tim are playing ball on the football field. The field is 8 yards long. This is how many feet long? How many inches long is the field?

5. Your brother is 5 feet tall. How many inches tall is your brother?

6. Mark is 8 inches taller than Mary, who is 52 inches tall. How many inches tall is Mark? How many feet tall is Mark?

7. John is sitting across the room. He is sitting 6 feet from Betty. How many inches is John from Betty? How many yards is John from Betty?

8. Sandy is knitting a scarf that when completed will be 7 feet long. She has 1 yard 6 inches completed. How many feet must Sandy knit?

WORD HUNT

Objective: To provide practice with the key terms and phrases in problem solving.

Activity: For one child or small groups

Material: Teacher-made dittos

Procedure: Hand out ditto and have children follow directions on ditto.

WORD SEARCH

FIND THE FOLLOWING TERMS AND PHRASES IN THE PUZZLE:

P	P	L	U	S	K	R	E	M	A	I	N	D	E	R	T
O	X	B	C	U	P	S	Z	N	P	K	U	D	O	L	N
T	I	F	G	M	H	A	J	S	U	G	X	Q	D	E	A
U	N	S	T	D	I	F	F	E	R	E	N	C	E	S	H
Q	O	R	I	S	E	N	V	T	R	F	P	W	T	S	T
X	Q	T	Y	V	Z	T	U	M	N	R	T	O	D	B	R
D	H	K	I	T	I	V	D	S	A	E	A	K	A	M	E
M	O	T	M	E	X	D	P	M	B	U	K	H	T	U	T
J	W	A	D	P	N	S	R	E	H	T	E	G	O	T	A
B	M	H	N	R	O	T	C	L	B	R	A	V	T	C	E
N	A	L	L	U	R	N	V	B	F	L	W	E	A	P	R
G	N	E	J	B	E	A	W	O	I	W	A	F	L	T	G
O	Y	V	T	R	H	G	X	R	E	X	Y	T	C	M	T
W	L	H	E	J	T	M	H	P	F	R	C	B	O	H	C
F	E	F	Q	R	E	T	C	D	O	W	J	R	S	T	X
T	F	K	U	I	G	N	K	R	B	S	E	A	T	G	O
I	T	E	A	X	O	W	D	O	P	D	X	G	P	A	B
U	R	I	L	C	T	S	E	W	T	C	U	D	O	R	P
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CLASS PARTY

Objective: To solve problems involved in buying items for a class party

Activity: For small groups or entire class

Materials: A ditto for each child with problems and space for work and answers

Procedure: Hand out ditto. Child works at his own rate.

CLASS PARTY

1. Potato chips come in 4 ounce bags for 35¢. The class will need 2 pounds. How many bags will they have to buy? How much will the potato chips cost?

2. Bread costs 30¢ a loaf and has 12 slices in each loaf. It will be necessary to have 5 loaves of bread. How many slices will the class have, and how much will the bread cost?

3. Sliced meat comes in 10 ounce packages and costs 50¢. Each package has 5 slices of meat. To have 30 sandwiches, you will need how many packages of meat. How much will the meat cost?

4. One can of punch contains 20 oz., one can makes 15 servings and costs 95¢. Each of the 15 children will drink 2 glasses. It will be necwssary to buy how many cans of punch? It will cost how much?

5. The 15 children will also have ice cream. If one pint of ice cream will serve 3 children, and costs 50¢. How many pints will it be necessary to buy? The ice cream will cost how much?

6. The total cost of the party will be?

PS-A-S-M-D

AT THE CORNER STORE

Objective: To provide practice in estimating

Activity: For 1 or 2 players

Materials: Price list of groceries, orders for groceries - Dittos
Answer Key

Procedure:

1. Shopper goes to the store with a shopping list.
2. Estimate how much the shopper's groceries will cost to the nearest ten cents.
3. Change is calculated on the estimated total from the amount of money shopper gives the storekeeper.

PRICE LIST

Lettuce	69¢ head	Milk	$1.09 half gallon
Carrots	23¢ pound	Frozen Pizza	89¢
Potatoes	89¢/5 lbs.	Fish Sticks	99¢ 10 oz. bag
Coffee	$2.63/pound	Fruit Drink	43¢ large can
Sugar	$1.49/5 lbs.	Tuna	89¢ 7 oz. can
Flour	95¢/5 lbs.	Double Cola	56¢ half gallon
Eggs	89¢ dozen	Crackers	59¢ 16 oz. pkg.
Bread	65¢ loaf	Pork Chops	$1,29/ pound

Mrs. Smith's Order

5 pounds flour _____
1 doz. eggs _____
2 loaves bread _____
2 hds. Lettuce _____

½ gallon milk _____

Est. Total _____

Mrs. Garcia's Order

5 pounds potatoes _____
1 pound coffee _____
5 pounds sugar _____
2 pkgs. Fish sticks _____

2 cans Tuna _____
_____

Est. Total _____

Mrs. McCall's Order

3 pounds carrots _____
2 dozen eggs _____
½ gallon milk _____
2 frozen pizza _____
2 cns Fruit Drink _____
2 boxes crackers _____

Est. Total _____

Mrs. Kent's Order

2 pounds pork chops _____
2 loaves bread _____
2 dozen eggs _____
10 lbs. potatoes _____
2 pounds carrots _____
1 pound coffee _____

Est. Total _____

Mrs. Kelly's Order

3 packages fish sticks _____
2 cans fruit punch _____
5 loaves of bread _____
2 pounds of coffee _____
2 boxes of crackers _____
3 pounds of pork chops _____

Est. Total _____

1. If Mrs. Smith gave the clerk a $10 bill, how much change would she receive from the estimated total? _____________

2. If Mrs. Garcia gave the clerk a $20 bill, how much change would she receive from the estimated total? _____________

3. If Mrs. McCall gave the clerk a $20 bill, how much change would she receive from the estimated total? _____________

4. If Mrs. Kent gave the clerk a $10 bill, how much change would she receive from the estimated total? _____________

5. If Mrs. Kelly gave the clerk a $20 bill, how much change would she receive from the estimated total? ____________________

EXTENSION: Add shopping lists to exact amounts and then calculated change from problems.

ANSWER KEY

Mrs. Smith's Order

5 pounds flour	$5.00
1 doz. eggs	.90
2 loaves bread	1.30
2 hds. Lettuce	1.40
½ gallon milk	1.00
Est. Total	$ 9.60

Mrs. Garcia's Order

5 pounds potatoes	$ 4.50
1 pound coffee	2.60
5 pounds sugar	7.50
s pkgs. Fish sticks	2.00
2 cans Tuna	1.80
Est. Total	$18.40

Mrs. McCall's Order

3 pounds carrots	.70
2 dozen eggs	1.80
½ gallon milk	1.00
2 frozen pizza	1.80
2 cns Fruit Drink	.80
2 boxes crackers	1.20
Est. Total	$7.30

Mrs. Kent's Order

2 pounds pork chops	2.60
2 loaves bread	1.40
2 dozen eggs	1.80
10 lbs. potatoes	1.80
2 pounds carrots	.40
1 pound coffee	2.60
Est. Total	$10.60

Mrs. Kelly's Order

3 packages fish sticks	3.00
2 cans fruit punch	.80
5 loaves of bread	2.10
2 pounds of coffee	5.20
2 boxes of crackers	1.20
3 pounds of pork chops	3.90
Est. Total	$16.20

1. If Mrs. Smith gave the clerk a $10 bill, how much change would she receive from the estimated total? 40¢

2. If Mrs. Garcia gave the clerk a $20 bill, how much change would she receive from the estimated total? $1.60

3. If Mrs. McCall gave the clerk a $20 bill, how much change would she receive from the estimated total? $12.70

4. If Mrs. Kent gave the clerk a $10 bill. how much change would she receive from the estimated total? $9.40

5. If Mrs. Kelly gave the clerk a $20 bill, how much change would she receive from the estimated total? $3.80